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DETROIT

Air Conditioning & Refrigeration News

The Newspaper of the Industry

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Plans Set For Service Men's Annual Meeting

Joint Session With ASRE To Be Held on Jan. 17

CHICAGO — Plans for the sixth annual convention of the Refrigeration Service Engineers Society, to be held in conjunction with the second All-Industry Refrigeration & Air Conditioning Exhibition, are well under way, and a tentative schedule of events for the convention program has been prepared.

One of the highlights of the program will be the joint meeting of the R.S.E.S. and the American Society of Refrigerating Engineers to be held on the afternoon of Jan. 17. The A.S.R.E. will provide two speakers for this occasion, and the service society will stage a "national championship" tube bending contest.

Subjects for discussion during the organization's educational sessions have been selected from a list submitted by a representative cross-section of members, and the educational committee is now at work obtaining speakers who are authorities on the chosen subjects.

(Concluded on Page 12, Column 1)

Frigidaire Adds Krumm, Truesdell To Staff

* * *

DAYTON, Ohio—L. C. Truesdell and R. E. Krumm have been added to Frigidaire's dealer development department in an expansion of the company's activities with department and furniture stores.

Mr. Truesdell will be assigned to nationwide activity in connection with development of department

(Concluded on Page 12, Column 3)

Air Conditioning Aids Labor Relations, Product Control, A.M.A. Learns

By George F. Taubeneck

CHICAGO—The American worker today is better protected against polluted atmosphere, occupational diseases, accidents resulting in bodily harm, and excessive fatigue, than at any time in the history of man's work, it was asserted by Dr. S. N. Stevens, dean, Northwestern University, in an address before the Production Conference of the American Management Association, at the Palmer House.

Speaking to more than 500 executives of the American Management Association's Production Division, from industries throughout the country, Dean Stevens said:

"New attitudes inevitably produce new habits of thought and new ways of looking at things; and our concern today with the effects of the total industrial environment on the well being of the worker is a natural evidence of the presence of new thoughts in the life of management."

Air conditioning, naturally, came in for its share of applause at the convention as a contribution to the welfare and well being of employes. But employe efficiency is only one string to industrial air conditioning's bow, as Executive Secretary William Henderson of the Air Conditioning Manufacturers Association stated.

Major reasons for the use of industrial air conditioning are, according to Mr. Henderson:

1. Improved quality of product.
2. Lower manufacturing cost.
3. Protection of inventories.
4. Improved employe health and efficiency.

Other speakers on air conditioning (most of them extemporaneous, in answer to questions from the floor) included A. E. Stacey, Jr., of Buensod-Stacey Air Conditioning, Inc. (his paper will be published in a future issue of the NEWS), D. C. McKinley of General Electric, Fred Wood of York, Ed Callahan of Vilter, and Logan Lewis, consulting engineer.

Mr. Wood contributed some interesting rule-of-thumb formulas to the discussions. For example, he was asked:

"What should an air-conditioning installation cost in a manufacturing plant with 50,000 square feet, 20-foot ceilings, insulated roof, normal sun, lighting, and motor loads?"

Figuring 2 or 3 tons capacity per 1,000 square feet of floor space, Mr. Wood said it would run 150 tons or less, figured at from $300 to $400 per ton.

In a discussion over the relative merits of compressor vs. steam ejector cooling systems, he observed that if in the normal operation of a building there is sufficient steam to run a steam ejector system—steam which otherwise might be wasted, then the steam ejector system might be satisfactory.

However, he pointed out that tremendous quantities of steam are required. One needs 60 to 70 pounds of steam per ton hour at low pressure. A 100-ton plant would require some 7,000 pounds of steam. Great quantities of condensing water also are needed.

The pharmaceutical industry, which occupies a position of trust vitally important to all of us, is a large user of air conditioning, Mr. Henderson revealed. The pharmaceutical manufacturer's products must be uniform, despite the fact that the many hundreds of materials he uses have characteristics that respond to different conditions of heat and humidity.

The diversity of requirements is indicated by the character of the work performed. Tablet forming and coating, liver extract packing, gelatin capsule forming, and the bottling of deliquescent substances indicate the range.

Pills and tablets must be carefully dried to prevent a surface hardening of the coating. Such hardening results when drying in too dry an atmosphere. While the outside may appear hard, in several months the inside moisture comes through, resulting in sticky pills.

With air conditioning, the drying process is slowed so that the center is dried first, no moisture is sealed inside, and there is no scorching of pills in drying rooms.

Effervescing tablets (those tablets which give off large quantities of carbon dioxide when submerged in water) used to be made only in December, January, and February; even then the tablets often contained enough moisture to be useless when the bottle was opened.

It used to be that gelatin capsules were never manufactured during the summer months, and even in winter the job was difficult, continued the speaker. When the drying of capsules is complete, they are stripped from the molds or pins by automatic machinery and the parts fitted together.

Capsule filling rooms are kept at a low temperature; for if the pins are too warm, the gelatin will flow by gravity down the pins, giving a capsule wall of variable thickness. Should the pins be too cold when dipped, the capsule walls will be too thick and the two halves cannot fit.

The processing of gland products is expensive because the raw material spoils readily. Furthermore, the

(Continued on Page 5, Column 1)

Norge To Show '40 Line Dec. 4-8

DETROIT — Norge distributors, their key executives and salesmen, will convene in Detroit for the entire week of Dec. 4 in a series of meetings which will combine an old-style distributors convention with a four-day product and sales school. The program will introduce Norge 1940 products and the company's expanded sales and promotion program.

The convention proper for all distributors of Norge products will be held Monday, Dec. 4 at the Players Club in Detroit. The distributors banquet will be held Monday night. Howard E. Blood, president of the Norge division of Borg-Warner Corp., will be the "keynoter" at the convention and the presentation of the new lines and plans will be under the direction of M. G. O'Harra, vice president in charge of sales, and J. A. Sterling, merchandising manager.

Starting on Tuesday, Dec. 5 and continuing through Friday, Dec. 8, a merchandising clinic will be held for the distributors, their sales managers, and their salesmen.

This clinic will be held at the Detroit-Leland hotel and will be somewhat in the nature of a "college of appliance merchandising knowledge," with the clinic being conducted on a classroom basis, with examinations at the end of each clinic, and with a final examination at the end of the week. An award will be given to the student getting the best "marks."

The 1940 Norge products will be on display at the Detroit-Leland hotel during the time of the clinics.

Coldspot In January

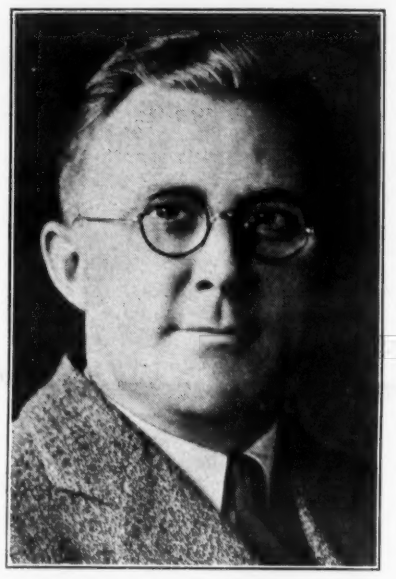
ST. JOSEPH, Mich.—Sears, Roebuck & Co.'s major appliance program for 1940 will be outlined to store managers of the company at a two-day meeting here Jan. 4 and 5.

The 1940 conference is being held at the manufacturing center for Kenmore washers, so store managers can see how they are made. Last annual merchandising meeting was held in Evansville, Ind., where most of Sears' Coldspot refrigerators are produced. Company executives will address the sessions.

Introduction of the 1940 Coldspots, production on which is expected to be started in a few weeks, will be made at a series of district meetings

(Concluded on Page 11, Column 2)

To Head G-E



C. E. WILSON

Kitchen Bureau Picks New Range Theme

NEW YORK CITY—"Then and Now" will be the theme featuring the Modern Kitchen Bureau's electric range promotion for 1940.

The theme plants the idea of graduating to modern electric cooking. Just as the bride of 50 years ago was delighted to graduate from kerosene lamps to electric lighting, so will the bride of today be elated with electric cooking is the idea the campaign is selling.

"Fast as fire, without the flame—clean and cheap, like electric light" is the punch theme song of the promotion. This will be "sold" to women who have an idea that electric cooking is slow and expensive. Through radio, direct mail, news-

(Concluded on Page 12, Column 2)

Picture Taking a Snap With Conditioned Photo Studio

ST. LOUIS—Air conditioning installed in the Tooley-Myron Studio here in 1937 increased high school graduation portrait business from 75 sittings in 1936 to 240 in 1937 and 400 in 1938, according to Martin Tooley, president.

The Delco-Frigidaire conditioning system is also credited with giving the business a 30% increase in profits during the past two years. Before the equipment was installed trade would fall off by half when high temperatures made sitting for a portrait anything but a pleasure.

Another consideration in the purchase of the system was that delicate oil paints, film, and tinting chemicals were reacting badly to excessive heat, and finishing employes found working conditions difficult.

Air conditioning was installed to

(Concluded on Page 12, Column 3)

Wilson & Reed To Take Over Reins At G-E

Young & Swope To Retire From Active Duties At End of Year

NEW YORK CITY — Owen D. Young, board chairman, and Gerard Swope, president of General Electric Co. are slated to retire from active management of the company at the end of the year.

C. E. Wilson will take Mr. Swope's place as G-E's president, and Philip D. Reed will replace Mr. Young as chairman of the firm's board of directors. Mr. Wilson has been executive vice president of the company and Mr. Reed assistant to the president.

Mr. Young and Mr. Swope will remain as directors, bearing the titles of honorary chairman and honorary president, respectively.

The resignations of the two executives are in line with a company policy under which men in important administrative positions consider retirement at the age of 65.

Crosley Will Unveil '40 Models Nov. 27

CINCINNATI—First showing of the 1940 line of Crosley "Shelvador" refrigerators will take place Nov. 27 at the national convention of Crosley distributors to be held in the Hall of Mirrors of the Netherland-Plaza hotel.

More than 500 persons, principally distributors and their sales staffs, are expected to be on hand to see the new Shelvador features and hear the company's merchandising plans for the new year.

Atlantic Jobber Group Gets 2 New Members

BALTIMORE—Two new members were added to the roster of the newly organized Middle Atlantic Refrigeration Supply Jobbers Association at the organization's second meeting here recently.

New association members are: R. D. Jones, Refrigeration Supply, Harrisburg, Pa., and H. W. Holt, William M. Orr Co., Pittsburgh.

Matters pertinent to the refrigeration industry, as far as buying and selling are concerned, were discussed at the meeting, reports F. Purtell of M & E Refrigeration Accessories Co., Philadelphia, a member of the organization. Attendance at the

(Concluded on Page 11, Column 2)

Gasoline Pumps Produce Appliance Sales For 2 Service Station Dealerships

MOBILE, Ala.—The gasoline pump is being used as a feeder for electric appliance sales in two super-service station setups in Alabama. One of these is the Quigley Specialty Co. of Mobile and the other the Thomas Tire Co. of Huntsville.

That these two firms are capitalizing on their service station contacts is indicated by the fact that the Quigley concern is one of the half dozen largest refrigerator and radio dealers in Alabama, and Thomas Tire Co. last year was the third best dealer in Alabama in electric ranges for a leading manufacturer.

Both dealers go in for a diversity of lines in an evident object of cashing in to the fullest on the automobile owner's dollar. The Quigley company's volume, for instance, is divided approximately as follows: tires, 30%; radios, 10%; refrigerators, 14%; batteries and accessories, 4%; gasoline, 10%; and automobiles, 32%. Radios and refrigerators together account for 24% of the volume, which runs around a quarter of a million dollars per year.

Gross income of the Thomas company for a recent month showed that electrical appliances accounted for more business than any other department, excepting only gasoline sales.

"We estimate that 60 to 75% of

(Concluded on Page 12, Column 3)

Key To Prize Boxes In Store Lures Prospects

SHARON, Pa.—Proving once again that the age-old lure of "getting something for nothing" has not diminished the least in its effectiveness, Ford Appliance Co. recently tied in with Kelvinator's "Key" contest to attract more than 750 people to the firm's store.

During this contest thousands of small keys were distributed throughout Sharon and neighboring towns. Each key was attached to a bright yellow card informing the recipient that if his key would unlock any of a number of boxes at the store that he would be presented with the prize contained in that box.

Prizes given away in this manner included $10 in credit, electric lamps, irons, toasters, and other small appliances.

Because of this contest's pulling power, Proprietor Ford stated, it proved a valuable way in which to present the new Kelvinator line to his prospective customers.

Barlow & Seelig Profit $79,751 For 9 Mos.

RIPON, Wis.—Barlow & Seelig Mfg. Co., manufacturer of "Speed Queen" washers and ironers, reports a net profit for the September quarter of $79,751.22, against $54,026.37 for the same period in 1938.

Net earnings for the first nine months of the year were $191,137.58, compared to $62,789.68 for the first three quarters of 1938.

Range Sales Increase In Knoxville Area

KNOXVILLE, Tenn.—Sales reports for appliance dealers here showed a total of 110 electric refrigerators and 118 electric ranges were sold during October. Sales value of refrigerators, however, topped that of ranges, $19,631 to $18,639.

Sales of motor driven heating plants amounted to 102 during the month, while water heaters totaled 25. High unit sales were made in washing machines with 335, and radios with 772 sold during the period. Vacuum cleaner sales stood at 97, space heaters at 122, and ironers at 11. Table cookery appliances sold amounted to 425, and one sale in electric dishwashers was recorded.

Total number of units of residential electrical equipment sold by dealers was 5,469, with a total dollar volume of $151,611.

Commercial sales during October included one air-conditioning unit with a sales value of $12,000, and 13 refrigerators.

H. B. Parker, Distributor For Norge, Is Dead

SAN ANTONIO, Tex.—H. B. Parker, sales manager for Norge Southwest Sales Co., Norge distributor in this territory, died of heart disease at his home here recently. He was 44 years old.

Mr. Parker had been associated with Norge sales for many years, first with the Ellis Chaney Co.

Washer Sales Continue Gains Over 1938

CHICAGO—A total of 1,110,166 household washing machines were shipped in the first nine months of 1939, an increase of 27.7% over the 870,901 shipments reported for the first nine months of 1938.

September washer shipments were 138,992 units, an increase of 10.47% over the 125,821 units shipped in September, 1938, and also well above the 132,297 shipments reported for August of this year.

Ironer shipments for the first three quarters of the year reached 82,219 units, against 82,581 in the same period last year. Ironers shipped in September totaled 10,565.

'Turkey Talk' Is Theme Of Hotpoint Campaign

CHICAGO—Hotpoint electric range dealers really will be able to "talk turkey" to prospects in the company's Christmas range selling campaign. Materials for the drive, prepared by the company, are adaptable in whole or in part to retailers of all sizes.

Two Hotpoint standard range models equipped with special accessories share interest with "old Tom Turkey" himself in the campaign. The drive involves "turkey teaser" newspaper advertisements, mats for which are furnished by the company, and distribution of "Turkey Tickets," admitting prospects to "Turkey Talks," as the demonstrations are called.

Dealer Closes Sales In His Home

Planned Kitchen and Model Basement Prove Right Atmosphere To Get the Order

ST. LOUIS—When J. C. Milton, president of Milton Appliance Co., tells prospects about the advantages of an electrical appliance or a complete electric kitchen, he's not speaking from hearsay.

For most of the sales made by himself and his two salesmen, whether they be complete planned kitchens or single-unit refrigerators or ranges, are now made with the Milton home, one of the electrical showplaces of St. Louis, as a background.

Milton Appliance Co. has been a G-E dealer in St. Louis for 11 years, and in that time has built up a backlog of 3,000 users in north St. Louis, from which practically all the annual volume of the firm derives. From this number, Mr. Milton estimates that around 20% have been sold on the idea of building up planned kitchens, and the rest represent a sizeable replacement market. There hasn't been any necessity to go outside this number of already-sold accounts, because the firm goes after them solidly enough to realize a profitable trade without fresh prospect hunting.

Two salesmen, George Marting and Joseph Piazza, are both members of the G-E Toppers Club, as is Mr. Milton, giving the firm a 100% Topper sales staff—an important factor in sales and prestige.

With this on-it-toes crew, Milton Appliance Co. consistently sells one out of every five prospects contacted, year after year . . . and there isn't a single card of the 3,000 in the office file which doesn't show one or two sales in addition to the original purchase.

Responsible for this record is Mr. Milton's theory of selling practical first-hand knowledge of his merchandise along with the appliances themselves. That's why, in September, 1937, he bought a model home in suburban St. Louis, outfitted it completely with modern electrical appliances, and began using it as a practical demonstration center for single-item sales and planned kitchen promotion.

Milton Appliance Co. prospects aren't treated to typical sales methods—instead, they are taken out to Mr. Milton's home, served coffee or tea, and asked to watch the model kitchen actually operate.

The St. Louis appliance dealer likes to turn his prospects loose in the kitchen; letting them turn switches, operate the dishwasher and garbage disposal machine, etc.—for in "getting the feel" of the model kitchen, desire for ownership is most strongly implanted.

In the Milton home is the entire range of G-E appliances, from radios to laundry equipment. The kitchen measures 8 x 10 feet, and is built on a U-shaped plan which allows planned-kitchen progression to be most easily explained. Included are an electric dishwasher, garbage disposal machine, electric range, and an 11-cu. ft. refrigerator. Backing up these major appliances are all small appliances such as fans, mixers, roasters, and coffee makers—all constantly in use, under the supervision of Mrs. Milton.

The kitchen, done completely in vitiate tile, may seem small—but Mr. Milton's idea in using the 8 x 10 size was to show graphically that the planned kitchen doesn't require an overlarge space.

Downstairs in the rathskeller basement playroom, Mr. Milton shows G-E laundry equipment and an electric water heater. There is also a G-E oil-burner furnace. Thus, through the six rooms of his home, Mr. Milton can demonstrate all his products in actual everyday use.

There were three main reasons for thus turning his own home into a sales producer, Mr. Milton explains—first, seeing a model kitchen set up in the business showroom, salesmen are likely to get used to it, and go stale on the idea of pushing this field.

Secondly, such a model kitchen doesn't have "life" which makes it interesting to all prospects. Third, the opportunities for hospitality and genuine confidence in the merchandise being demonstrated are increased a thousandfold in the home.

Salesmen can make use of the Milton home for any type of appliance selling, from one refrigerator to the complete planned kitchen. After the original call, the salesmen make an appointment with the prospect and arrange for time in the model home, usually allotting two hours to a planned-kitchen demonstration, and one hour on a range or refrigerator prospect.

The Milton showrooms are eight miles from the home, so that the expense-per-prospect is a bit higher—but results accomplished are well worth while. Many prospects who visit the home to buy only one item often are converted into buyers of complete planned kitchen.

In early September of this year, Mr. Milton sold a $940 complete electric kitchen to a prospect ostensibly interested only in a range. Prospects have cooked entire meals in the model home to "sell themselves", and the kitchen is now busy with demonstrations six hours a day.

Sponsorship of Boys Band Assures Dealer Of Many Prospects In Future Years

PUEBLO, Colo.—"Strike up the band!" That's the sales-producing call of D. Z. Phillips Music Co., Westinghouse dealer here, which sponsors a 350-piece band, one of the leading musical organizations in the West, to head the parade of sales that follows from this unique musical organization.

Founded in 1926 by D. Z. Phillips, president of the firm, the band has grown from a few musical kids to its present size. The boys are carefully trained and have brought fame to this city—and prestige and business to the enterprising dealer who started them on the down-beat trail.

The kids who first started tootin' with the band have grown up and are now regular customers of the store. A continuing supply of prospects is assured as the present members reach the "buying age."

This dealer does not depend entirely on the sales harmony resulting from the huge band. A plan for grocery store cooperation has also proved very successful in selling refrigerators.

A refrigerator is placed on display in a grocery store, filled with food, and this food is offered free to the person who buys the refrigerator during a limited period. Forty-five of the leading grocery stores in the area now cooperate on this plan.

The refrigerators are displayed in the grocery stores for a week, from Friday until a week the following Monday in order to get the additional value of two week-ends of display time.

Theaters are also used for sales promotion. Displayed in the lobby of a theater, the refrigerator may be demonstrated to the theater goers. Prospects are given an opportunity to see the show free.

Users play a large part in this dealer's sales plan. A list of users is prominently displayed on the walls.

APPLIANCE SELLING IS EASIER WITH G-E MOTORS for 2 REASONS

Consumer Acceptance

APPLIANCE owners have been satisfied with G-E motors so many years that prospects are quick to accept them. Not only are G-E motors immediate proof of dependable electric equipment, but they are another indication that your appliances are of high quality. See—below—the results of impartial surveys that show this public acceptance of G-E products.

Customers Buy from You Again

YOU know the value of satisfied customers—they return for other purchases. In addition, they're your best advertisements.

You can be sure that G-E motors will please your customers in every respect. They are quiet. They are mounted in rubber. Their rotors are inherently well balanced and are correctly designed. Moreover, these motors do not interfere with radio reception.

They're economical, too. Built of high-quality materials, these sturdy motors give many years of trouble-free service. Wearing parts are few and are designed for years of operation. Also, G-E motors make friends because they do not require attention except oiling once a year. General Electric, Schenectady, N. Y.

More than a million G-E capacitor-motors are now in use on domestic refrigerators

DEALERS
A leading publisher recently sent a questionnaire to electric-appliance dealers and department stores. One question was: "What makes—or brands—of electric motors, in your opinion, would make it easier for you to sell appliances?"
84% said General Electric
66% said Manufacturer A
26% said Manufacturer B

HOUSEWIVES
When shown different brands of lamps, housewives were asked:
"If you were buying lamps, which of these would you accept?"

City	Choosing G-E
Cleveland	93 out of 112
Cincinnati	77 out of 99
Columbus	49 out of 60
Detroit	65 out of 70
Indianapolis	70 out of 75
Pittsburgh	28 out of 61

382 out of 477—80%—chose General Electric

MOTOR BUYERS
"Taking into consideration quality, price, and service, when you are next in the market for motors and control, which manufacturer will you ask for quotations?"
The first choice of 10,000 buyers:
55.5% General Electric
20.0% Manufacturer A
2.7% Manufacturer B
2.0% Manufacturer C
1.6% Manufacturer D
18.2% All Others

AVERAGE BUYERS
People in "Middletown" (Muncie, Ind.) were asked, among other questions:
"Which companies, in your opinion, give buyers good value for their money?"
324 out of 486—66.6%—mentioned General Electric.

GENERAL ELECTRIC
070-215

Anaconda Copper Refrigeration Tubes

THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices: Waterbury, Conn.

'3-Sided' Campaign Boosts Sales 55%

MUNCIE, Ind. — A three-sided sales activity inaugurated here this year by Indiana General Service Co. is showing appliance dealers a 55% increase in sales over the corresponding period of 1938.

The campaign, with "invest your electric rate savings in time-saving appliances" as its slogan, has three basic aspects: for customers, a chance to buy appliances at low prices, use them at the lower rates; for dealers, an "appliance of the month," plus the lower rates, to increase sales and volume; for the utility itself, regained revenue through a heavier appliance load.

One appliance is selected for special promotion each month, and is played up by the utility in at least one advertisement in local newspapers, in addition to another monthly advertisement dramatizing the rate reductions. Dealers tie-in with the institutional copy with smaller insertions featuring specific appliances.

Special displays featuring the appliance of the month also are being furnished dealers, together with blow-ups of the advertising matter. Best dealer windows on the specially featured appliance also compete for monthly awards of $20.

Monthly distributor and dealer meetings are held to keep campaign interest high. Leaflets describing the various monthly appliance drives are distributed by utility meter readers, solicitors, and cashiers, and are available to dealers without cost. Special truck and car signs also are being provided.

Dealers are assisted in training additional house-to-house canvassers, the utility advocating this type of approach as an entry to sales and luring business beyond the special monthly featured appliances. Special prize drawings are held monthly for dealers and salesmen to increase interest in the dealer meetings. Attendance at the meeting is necessary to qualify for one of the awards.

Meade Given McGraw Medal For Cooperation

NEW ORLEANS — Harold E. Meade, vice president of New Orleans Public Service, Inc. was awarded the James H. McGraw Award Medal for Cooperation in a ceremony Nov. 15 at a dinner sponsored by the electrical industry of the city.

According to the citation accompanying the medal, the award was made to Mr. Meade in recognition of his "development of a program for the education of dealers' sales people in New Orleans. Beginning with the promotion of lamps and lighting equipment, it now embraces domestic and industrial sales and has become the impulse of a nationwide sales training program benefiting dealers, wholesalers, and manufacturers."

Committee of judges which awarded the medal to Mr. Meade consisted of B. W. Clark, president of Westinghouse Electric Supply Co., New York City; D. Hayes Murphy, president of Wiremold Co., Hartford, Conn.; S. J. O'Brien, president of S. J. O'Brien, Inc., New York City; and P. H. Powers, vice president of West Penn Power Co., Pittsburgh.

G-E Dealer Moves—Presto! —Sells Electric Kitchen

DILLON, S. C.—Electrical Appliances, Inc., General Electric dealer here, has moved into new quarters in a completely remodeled building.

This firm, headed by Joe Wood, recently sold the first all-electric kitchen in Dillon. This setup included a refrigerator, range, water heater, dishwasher, garbage disposal unit, and cabinets.

Everett Hall and Van Welch are salesmen for this company.

Nation's Capital Gets New Hotpoint Dealer

WASHINGTON, D. C.—MacMannes Homewares Co. has been appointed an exclusive Hotpoint refrigerator and major appliance dealer in the capital area.

Seth Renamed Bendix Outlet In Baltimore

BALTIMORE — Stephen Seth & Co., Inc. has been reappointed distributor in the Baltimore territory for Bendix home laundry equipment, and now handles both the Baltimore and Washington areas. It has had distribution in the Washington area for the past two years.

Earl Lipe has been appointed sales manager of the appliance division. William J. Middleman will contact the trade in metropolitan Baltimore, and A. Ragan will cover metropolitan Washington.

Adds Link-Belt Line

CHIPPEWA FALLS, Wis.—Blanchard Radio Sales here has been named representative in this district for the Link-Belt line of automatic coal stokers. The firm also sells and services radios, refrigerators, washers and ironers, room coolers, and outboard motors.

Hill & Gray Named To Represent Westinghouse

BALTIMORE—Paul Hill has been appointed district representative for Westinghouse refrigerators in the Baltimore and Washington territories, working in cooperation with the Baltimore and Washington branches of Westinghouse Electric Supply Co. C. Gray has been given a similar assignment on Westinghouse ranges.

New Carolina Dealer To Feature Used Appliances

ASHEVILLE, N. C.—E. E. Edwards, formerly connected with Dacy Electric Co. here, is now in the appliance business for himself under the name of Electric Sales Co. Established in a completely renovated store on College St., Mr. Edwards is specializing, at the present, in used radios, refrigerators, and ranges, but he expects to take on a line of new major appliances in the near future.

Radio Plays Major Role In Making Appliances Count Heavy In Oklahoma Tire & Supply Sales

OKLAHOMA CITY, Okla.—Success story of the appliance department of Oklahoma Tire & Supply Co., an 83-store chain operating in four states in the southwestern area, and radio broadcasting's part in building appliance sales, is featured in an advertisement of radio station WKY, Oklahoma City, in a recent issue of Advertising Age.

The full-page color advertisement pictures the busy appliance department of one of the Oklahoma Tire & Supply Co. stores, headed with the block caption, "'Women Wanted."

When the company added appliance departments to its stores, it was faced with the problem of interesting women, the advertisement relates, because "men are not the big buyers of radios, refrigerators, washing machines, and ranges."

To reach the women buyers, a radio program with a special appeal to the ladies, and featuring home appliances, was put on the air over station WKY and two other stations in Oklahoma Tire & Supply Co.'s selling territory.

Net result of the tailor-made show for women listeners, the advertisement points out, is that today "almost one half of the company's business comes through the appliance departments."

Feature of the programs, which run weekly Monday through Friday, is a musical organization, "Otasco Merrymakers."

Fisher Goes From Buffalo Utility To N. C. Dealer

ASHEVILLE, N. C.—Frank Fisher, formerly with Buffalo-Niagara Power Co. at Buffalo, is the new sales manager of Dacy Electric Co., Kelvinator dealer here.

After an introductory year in which the momentum of the great Philco name, the public demand and trade preference for a Philco product swept us far beyond our first year's quota . . .

PHILCO is Now Ready to Forge Ahead in Refrigeration with the

New 1940 PHILCO REFRIGERATOR

- **AN ENTIRELY NEW REFRIGERATOR**—*new* inside and out—completely redesigned from top to bottom by Philco.
- **PRESENTING** *every* up-to-date refrigerator feature science has conceived.
- **PLUS** brand-new improvements and inventions developed by Philco's refrigerator engineers and presented for the first time in the new 1940 Philco Refrigerator.
- **EYE-APPEAL AND BUY-APPEAL**—the most beautiful refrigerator ever designed, offering the most *complete* service in the refrigerator field.
- **AND NOW NAMED** the "Philco Refrigerator", a full-fledged member of the Philco family.
- **A FULL LINE** of outstanding values to clinch sales in *every* price bracket.

Coming Soon!

For 1940—Isn't THIS the Kind of Refrigerator Proposition You'd Like?

1- A superior quality product with new, exclusive, advanced features that your salesmen can "get their teeth into" and your customers instantly see and appreciate.

2- A product with a NAME . . . with REAL public acceptance.

3- A company behind the product that *knows* the appliance field, that specializes in appliance merchandising, that devotes its *entire* thoughts and activities to *your* problems and *your* profits.

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Use of Sterilamps In Food Storage

Actual Applications In Commercial Refrigerators Described & Lamp's Value Told In Simple Terms

By T. R. Porter, Special Products Dept.,
Westinghouse Lamp Division, Bloomfield, N. J.

Editor's Note: This is the first article on how Sterilamps are used in commercial refrigerators. Others to follow will explain methods of installing the lamps correctly.

The many articles which have appeared during the past year on the Sterilamp* and its application to the meat industry, have been confined largely to the retailer's walk-in box. The interest shown in these articles has inspired a further treatment of the subject, emphasizing some of the many so-called "special" applications for Rentschlerizing in the edible meat field.

If you ever have occasion to order dinner at the Waldorf-Astoria, the Colony Restaurant, or the Stork Club in New York City, or on the Steamship "Queen Mary," you should not overlook smoked turkey. This is one of the treats that was at one time reserved for royalty, and the process of smoking turkey was brought to this country by a son of a former chef to the Royal House of Germany.

What is this secret process, and why cannot anyone smoke turkeys? First of all, the brine in which the turkeys must be cured after they have been drawn, contains 11 herbs and spices, some very rare and obtainable only from a house in London that specializes in them.

During the curing period, and afterward, until they are taken to the smoke houses, the turkeys are kept in a large refrigerator at a closely held temperature of 40 to 42° F., with the air circulated through refrigerating units by fans, and with any possibility of contamination by the mold of decay or the bacteria of disease eliminated by the use of the Rentschler-James Process, of which Westinghouse Sterilamps* are an integral part. From this refrigerator, birds are taken as required to the smoke houses, where they are hung over a wood fire.

Singularly enough, this fire cannot be made of just any wood, for the kind has an effect upon the taste of the meat, and experienced discrimination has selected apple wood as the best. Thus, the processor scours the nearby countryside for old apple orchards which he buys out and cuts into cordwood. His woodpile seldom contains less than 40 cords and may run to over 100. Perhaps nowhere else in the entire world can this much cut apple wood be seen.

Pinesbridge Farm, responsible for this turkey delicacy, seems to specialize in "firsts." By installing the Rentschler-James Process, the owner uses the process for an additional reason, that of keeping his brine free from mold. Brine and curing solutions are often just the kind of food most desired by molds, and molds grow to some extent in them, even at 40° F.; but in a brine irradiated by the sterilizing lamps, mold has no chance of starting development and the turkeys are thus protected in this very important stage of their preparation. This is the first use of sterilizing lamps for this purpose anywhere.

*Trade mark registered U. S. Patent Office.

Testimonials From Meat Firm Users

Mr. Blitzer, owner of the farm, has stated that although his losses in 1937 from spoiled turkeys were not great, they fell to zero in 1938 with the installation of the new sterilizing process in June. Concerning the commercial advantage of the process, he said:

"The resultant saving much more than paid for the installation in the one summer. We also had another and quite unexpected money saving. In former years, all turkeys shipped in summer had to be packed with dry ice. In 1938, however, we used no dry ice and no turkeys spoiled in transit because they were free from mold spores and bacteria when shipped. The saving in dry ice paid for maintenance and operation of the process three or four times over."

Mr. Cotner of St. Louis has a small grocery and has built up a good business selling hamburger to hamburger stands. He handles about twenty accounts and his big problem has always been to have sufficient quantities on hand to take care of the demand, and not too much left over from one day to the next, as this always resulted in a loss because, he found, it was impossible to hold hamburger over 20 hours. However, since he has installed Sterilamps*, he is now in a position to keep his meat in good condition for at least forty hours.

Mr. Cotner formerly purchased cut meat in barrels and stored it in his cooler to sell the following day. Now he buys his meat in quarter sizes and in larger quantities, which he places in the cooler where it is irradiated from the time it is received until it is ground. The grinding of the meat is all done inside the cooler under the Sterilamps*. The meat is then placed in containers until sold.

In preparing hamburger, Mr. Cotner reports the following benefits from the use of the Rentschler-James Process:

1. Better control over his stock of hamburger.
2. Elimination of loss due to spoilage, drying, and dehydration.
3. A saving in refrigeration costs due to operation of the cooler at 42° F.
4. Better meat that will keep longer in dealers' refrigerators.
5. A real merchandising story to tell his dealers.

The Lincoln Market, Oil City, Pa., reports that shrinkage was reduced to 1% in 48 hams, which is considerably less than they had experienced prior to the installation of the Rentschler-James Process. Odors entirely disappeared and no mold has been noticed since the installation was made.

What is the new process? It is a system for directly reducing bacterial and mold spoilage and making possible other benefits resulting from higher temperatures and higher relative humidities. The process supplements refrigeration by reducing the number of bacteria and mold spores which the low temperature is called upon to make inactive.

Parts For Installation

The most important part of the Rentschlerizing equipment is an ultraviolet sterilizing lamp called the "Sterilamp." It is a tube about half an inch in diameter, made of special glass, and in lengths of 10, 20, and 30 inches. Several kinds of fixtures are available for holding the lamps and reflecting the ultraviolet.

A power unit for operation of from one to six Sterilamps* in series consists of a transformer, a protective relay, and a starting button, all in an iron box 11 x 8⅝ x 4 11/16 inches.

Electrically, the Sterilamp* is a low-pressure mercury discharge tube started by a high voltage surge of 400 to 750 volts and operated in series with a high inductance at a current of .03 to .05 ampere. Overall power consumption is about 14 watts for the 30-inch tube, and less for the shorter lamps. Sterilamps* are designed for operation from alternating current circuits of 105 to 125 volts.

The Sterilamp* is a very efficient generator of selective wavelengths of ultraviolet peculiarly deadly to bacteria and mold. In fact, it is the first practical generator efficient enough to be utilized in refrigerators. Because of its high efficiency, it gives only a small amount of visible light and very little heat.

Most of the well-known fundamentals for operating walk-in boxes or refrigerated areas must be revised when Sterilamps* are used as an adjunct to refrigeration. In explaining the reasons for revising these rules, some consideration may be given to the fundamentals of meat preservation.

How It Operates In Food Preservation

Refrigeration makes germs lazy; it does not kill them. The colder the box, the more inert the germs and mold spores within it. Were it not for practical difficulties, butchers would keep their boxes far below freezing to reduce spoilage.

Two of the greatest difficulties preventing this are the unavoidable drying out of meat surfaces which become dark and require wasteful trimming, and actual losses of weight in meat. Water evaporating from meat surfaces at the low temperatures deposits on the freezing coils as frost and the humidity in the box is thus kept so low that the air soaks up water from the meat.

If the cooling coils could be run above 32° F., no frost would form, humidity would remain high, and meat would neither lose much weight nor darken easily.

When some of the responsibility for reducing bacterial spoilage is lifted from the cooling process by the ultraviolet radiation, the temperature can be raised. Careful field tests over five years have proved that it can be done, and these tests have formed the basis for rules governing installation and operation of Rentschlerizing in walk-in boxes and other refrigerated areas.

The following elements are essential, each one of them supplementing the other, and unless these elements are in proper balance and properly controlled, the maximum benefits from the Rentschlerizing process cannot be obtained.

1. Selective ultraviolet radiation. Radiation must be installed in the quantity recommended by the manufacturer, and the Sterilamps* must be positioned as specified. Radiation will kill bacteria and mold spores floating in the air, and will reduce development on meat surfaces. Its effect will extend to shaded portions of meat not in direct line-of-sight of the Sterilamps*.

2. Controlled temperature. Temperature may be raised by an amount determined by experiment for each installation, but the final temperature of operation is preferably between 38° and 42° F.

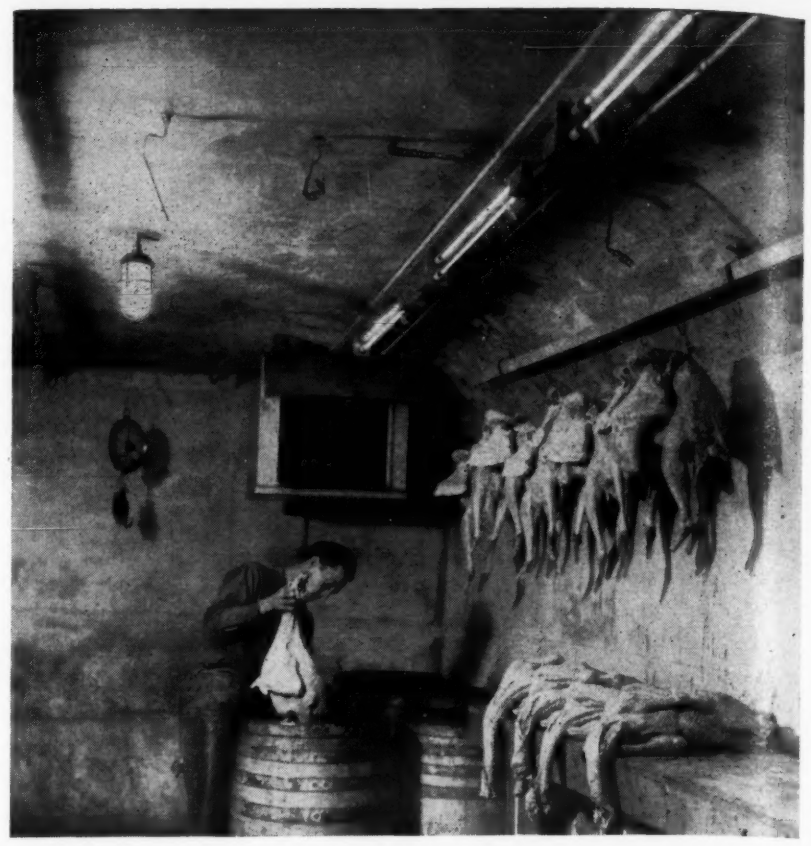
3. High relative humidity. In some cases, temperature increase alone will raise the humidity sufficiently; in other cases, a humidifier must be installed. In any case, the relative humidity should be raised to between 85 and 90%.

4. Proper air circulation. In some crowded refrigerators, operation will be improved by circulation of the air with one or more electric fans, positioned as recommended by the manufacturer. Ordinary electric fans are not satisfactory, but the manufacturer of the Sterilamp* has developed a fan for this purpose.

Without air circulation, the radiation alone will not have an adequate effect on the meat surfaces not directly reached by the ultraviolet radiations. Air circulation also promotes more uniform temperatures throughout the box.

What does all this mean? First, that the Rentschler-James Process is the ideal complement to refrigeration; second, when installed with its component parts in proper accord for each installation, it reaps maximum benefits; and third, that it may be applied later to retailer straight walk-in boxes, as well as to innumerable special applications.

Special Cold Storage Application



In this room where turkeys are cured before they are smoked, the Sterilamps continually irradiate the interior of the room, the turkeys, and the brine barrels.

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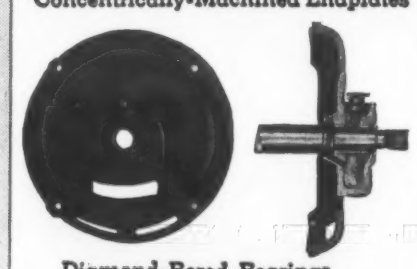

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Henderson Tells Management Executives Group What Air Conditioning Can Do

* * *

(*Continued from Page 1, Column 3*)

therapeutic value of gland and other animal products is destroyed by processing at a temperature above 77° F. One manufacturer has even found it advisable to air condition the housing quarters of experimental animals.

Textiles

Many materials to be processed are hygroscopically sensitive, Mr. Henderson pointed out. Let the air in which they are being processed become too moist or too dry, and production stoppages and other troubles develop. The cotton textile industry is a good basic example of what air conditioning can do to minimize troublesome moisture conditions, and the cotton textile industry was one of the first to control humidity through the use of air conditioning.

One reason this industry centered for so long in New England, far from the cotton fields of the South, was that the New England climate had a high incidence of humid days. Static from a too-dry atmosphere provides provoking problems in drawing, roving, spinning, and practically every other step of cotton processing. But with the proper humidifying of the air, trouble-making static disappears; and machine stoppages, yarn breakages, lint-filled air, and sick workmen become rare occurrences.

The cotton mill without adequate humidity control is the exception rather than the rule nowadays; for, without air conditioning, few mills can compete economically. South Carolina counts on the cotton-processing industry as one of its major economic pillars, and recently that state considered a law making the air conditioning of cotton mills mandatory.

As a consequence of the wide use of air conditioning in the textile industry, manufacturers have been able to move their operations closer to sources of raw materials and low-cost labor, with the elimination of the weather hazard as an obstacle to economical production.

Basically, the same problems are encountered in all textile production, whether it be woolens, silks, or synthetic yarns; and all are solved in generally the same way, with minor variations.

Food Industries

"The food-processing industries are large users of air conditioning," Mr. Henderson continued. "To avoid detail, we may take the confectionery industry as fairly illustrative. In general, air-conditioning apparatus for confection manufacture must be capable of conditioning air to any desired temperature or moisture content—regardless of outside weather conditions—and of providing ample air supply at all times.

"Good air distribution is essential for the control of air motion and for the prevention of uneven conditions. Desirable relative humidity during the manufacture of candy depends upon the product and the nature of the process. As far as the behavior of the material itself in its desired final condition is concerned, each material and process presents a different problem.

"Similarly, the most desirable temperature for the processing of different materials may range between wide limits. In departments where people are working, their health, comfort, and productive efficiency must be considered, and often a compromise between the optimum conditions for processing and those required for the comfort of the worker is advisable.

"The baking industry is also heavily dependent on air conditioning for efficient production. In bread bakery, the flow chart is as follows: ingredient storage room mixer, dough room, make-up department, proofer, bread cooler, and wrapping room.

"In the bakery, flour is not the only material which requires proper storage conditions. Yeast, milk, butter, shortening, fruits, and raisins must be protected. Each step in bread baking requires a different optimum condition and we need not describe them all. However, indicative of the necessity for air conditioning are the cooling and wrapping processes.

"Without controlled conditions, the temperature in the cooling room varies from 75° to 100° F. at different seasons of the year, and there is a variation of 1½ to 4 hours in the time necessary to cool the loaves—a variation which can seriously affect delivery schedules.

"In addition, the longer the product is exposed to mold spores present in any uncontrolled atmosphere, the more danger there is of mold contamination. The best conditions are 70° F. and 60 to 70% relative humidity.

Bakeries

"In this department, a very rapid air movement is essential for the proper cooling of the bread which leaves the oven at 200° F. Before a loaf can be sliced or wrapped, it is important that every part of each loaf be cooled to 85° or 90° F.

"If the air movement in the cooling room is slow, the bread will not cool within the required time. If it is wrapped before it has been properly cooled, it becomes moldy much more rapidly than bread which is in the right condition when wrapped. If the velocity of the air is too high, hardening of the crust and checking of the bread will result.

"There is still another reason for air conditioning's importance in the manufacture, packing, and storing of foods. As industry develops, practically all processes tend toward higher standards of quality and uniformity—and the purchaser expects the jar or box to look full, as well as to conform to the weight printed on the label.

"Unfortunately, certain chemicals are definitely affected by the atmosphere, and many of the powdered and granular materials sold in packages are just the materials which have the greatest surface exposed for absorption of moisture or dehydration.

Packaged Foodstuffs

"You manufacturers of packaged foodstuffs know how rapidly consumer goodwill and product acceptance can be lost, if word gets around among housewives that your product is lacking in quantity or quality.

"The manufacture of flour is a good example. If the humidity is too high, the screens for sifting the flour clog. If it is too low, the flour fails to retain the desired moisture and weight. If the temperature is too high, the mesh of the screens changes and their sifting capacity is changed.

"The moisture content in flour is of two types: (a) surface moisture, which adheres to the surface of the flour particles, and (b) water of hydration of the swollen protein particle. Heat will drive off the former, but the latter, if removed, changes the properties of the proteins.

Machinery

"But let's leave the field of consumption goods," went on Mr. Henderson, "and take a look at some of the problems which air conditioning solves for a machinery manufacturer whose difficulties probably parallel those encountered by many of you here today.

"The gauge room presented a problem. All precision parts fabricated in the shops require checking for size through the use of gauge blocks, plugs, micrometers, go and no-go gauges, et cetera. Three sets of gauges are needed: one in the hands of the operator producing the part, one for the inspector, and one kept as a spare.

"Since tolerances are held within .0001 inch or less, it is necessary to check these shop gauges against master gauges two or three times a week. Considerable difficulty was met as the three sets of shop gauges would not check against each other or against the master, because of temperature variations in the various buildings.

"Moreover, even if the gauges to be checked were held in the same room over a period of time, an accurate check was not obtained, since the master gauges were of larger cross-section and contracted and expanded to a different degree than did the shop gauges.

"As a result of these variations, considerable argument and disagreement arose between operators and inspectors, and the inspector sometimes rejected parts which, according to the operator's gauge, were correct in size.

Parts Inspection

"In order to overcome the problem, it was necessary to have a room in which constant conditions of temperature could be maintained, so that the gauges could be left for a period of time and then could be checked with confidence that all variations due to temperature had been eliminated.

"For this reason, it was necessary to install an air-conditioning system to maintain a constant temperature and to seal off the gauge room from the rest of the building. Since the men worked in the room, it was necessary to introduce fresh air and to control humidity.

"The installation was inexpensive, as the room did not need to be large for this type of work. The windows were bricked up with glass brick, and all air introduced was filtered.

"As a result of this installation, there was a substantial reduction in losses caused by rejections. Another result was the elimination of lost time due to disagreements and arguments between operators and inspectors.

"In the assembly of accurately ground and lapped parts, certain preliminary assembly operations of the compressor parts and both machine and hand lapping operations are carried out. The machinery manufacturer faced difficulties because of large amounts of atmospheric dust and railroad cinders, which resulted in a large number of rejections on preliminary assembly.

"To meet the problem, it was obvious that the room should be closed off from the outside, in order to eliminate the dirt and dust. However, because of the heat and presence of fumes from the hot cleaning fluid, ventilation, cooling, filtering, and humidity control were necessary. For this reason, an air-conditioning system was installed.

"As a result of the installation, rejections were reduced greatly and, because of more comfortable working conditions, production efficiency was increased. Moreover, as a result of the elimination of scratches during lapping, the operators were able to turn work out faster and to earn larger bonuses. Since bonuses are calculated under a modified Halsey bonus plan, the larger bonus earnings meant an equal savings to the company.

"The compressor assembly room presented another problem to this machinery builder. Here are assembled all small compressors, 4-inch bore and under. The various parts come here completely machined and cleaned of all oil and dirt.

"Among the parts is the shaft seal, consisting of two pieces which have been precision turned and which must fit with a metal-to-metal contact. These pieces are placed around the revolving crankshaft to hold a gas within the compressor crankcase. Any imperfections in the contact between the two pieces result in leaks.

"The company was faced with a large percentage of rejections of completed compressors because of leaks which necessitated considerable expense of material and labor to correct. Upon investigation, it was found that the leaks were due to very fine dirt which was deposited on the parts during assembly. Al-

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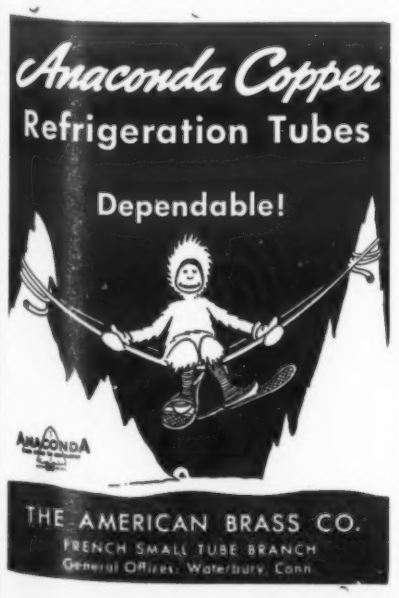

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Let's Rekindle Home Fires

PSYCHOLOGICAL effect of England's declaration of war on Germany was good, insofar as immediate stimulation of American business was concerned. Industrial production rose sharply, as both speculators and legitimate purchasing agents bought materials to hedge against higher prices.

It now appears, however, that we can't expect heavy purchasing from European powers. That no doubt is an excellent thing for our economy, in the long run. But in laying our programs for the coming year, it will be well to discount any wild notions which may have been prevalent that European buying will absorb our surplus agricultural crops, or put hundreds of thousands of men back to work.

South American Trade Looking Up Decidedly

Certain industries will benefit, of course. Machine tools, for example. And airplanes. General Electric and Westinghouse, for example, are busy providing all sorts of electrical devices, such as sound detection equipment and searchlights. Many other concerns will benefit from orders placed by our own War and Navy department.

Also it should be noted that South American trade will undoubtedly look up in 1940, due to the withdrawal of European suppliers from the South American market. But as for a boom in purchases from Europe, these things should be noted:

European Business Seems Unpromising

1. Most of central Europe can no longer buy from America, because of the British blockade.

2. Raw materials and foodstuffs are already held in vast stocks by the belligerent nations.

3. British and French productive capacity is far greater than it was during the last war.

4. Restrictions on civilian consumption have already been put in effect in England and France, offsetting to some extent their purchases of machine tools and airplanes. The import of fresh (refrigerated) fruits from America has been banned, for example.

5. England and France can buy from us only what they have the cash to pay for—unless Congress, God forbid, relaxes its vigilance on the matter of extending credits to the Allies.

6. This current "war" doesn't seem to require much in the way of shot and shell.

Domestic Business Has Excellent Outlook

All these things would indicate that there will be no wild war boom, nor price-hoisting spree, in 1940. Business will continue to improve, most experts feel. It was already on the way up when the European war gave it a further shot in the arm. The upswing, the experts believe, will progress in orderly fashion without getting out of hand.

This being so, we can once again turn our attention to domestic problems. These remain exactly where they were when we laid them aside late last summer to take up our vigils by the radio. They still need thought and attention.

But Political Situation Is Still In a Mess

There's the Wagner labor relations act, for instance. Even Senator Wagner is now said to admit that this act needs amending, so as to provide a little more justice for employers, for non-union employes, and for minority unions.

And then there's the astronomical national debt, which is still soaring. It'll hit the legal ceiling of $45,000,000,000 very soon. (As a matter of fact, it already has—according to simple bookkeeping.) Taxes need revision. So do laws and administrative edicts which discourage investment.

In the last war the slogan was: "Keep the Home Fires Burning." The situation at present—with so many home fires burning low, and others out completely—would seem to call for a revision of that slogan. "Let's Rekindle Home Fires" would be more like it.

Just What Is Propaganda?

SINCE the beginning of the new war the American public has been repeatedly warned against the dangers of being influenced by insidious propaganda. Ever since the first World War, in fact, there has been a growing consciousness of the effects of propaganda and some degree of understanding regarding its technique.

There is still much confusion, however, as to just what constitutes evil propaganda and just wherein it differs from constructive education. There is a tendency to lump together under the head of propaganda everything in the nature of an effort to influence the opinions, tastes, or habits of other people.

Even advertising, which is certainly open and above board, since it is always recognizable as such, is frequently branded as vicious propaganda, particularly by those who have put their faith in the so-called "consumer movements."

In a recent address at a meeting of the Chicago Federated Advertising Club Louis Wirth, Professor of Sociology at the University of Chicago, made some interesting observations which may be helpful in clarifying hazy thinking on these subjects:

"Advertising, like propaganda, is an ancient, and some say none too reputable a calling. Machiavelli formulated the art very well during the Renaissance when he pointed out that in government (which was the problem with which he was primarily concerned) the supreme task was to get people to obey as if they themselves were in command; to get people to do what they must do as if they themselves wanted to do it.

"Ever since his time propagandists have been attempting to work out devices which would improve upon the old. Ever since his time too, there has been something sinister about the propagandist's job as the ordinary citizen views it.

"But propaganda and advertising also have a very respectable heritage. The College for the Propagation of the Faith has been a venerable institution within the Catholic church for several centuries. If, therefore, the propagandist and the advertiser wishes to rationalize his calling by attempting to discover good and respectable reasons for his existence there is no dearth of precedents.

"He has been, and is, an instrument for holding society together, for generating collective action through the building up of faith in common symbols, and in our own day, when his interests are secularized the commercial advertiser can say with good conscience that in an age of mass production he makes possible mass distribution by creating a steady demand for the products of modern industry.

"It is presumptious for one who is not a member of your guild to attempt to sit in judgment on the technicalities of your profession. But I can console myself with the thought that in some respects my profession also consists in the purveying of symbols and with further reflection that I need not be able to lay an egg in order to tell a good egg from a rotten egg.

"Everyone here no doubt thinks that he is advertising a product that is good and is doing so by means that are ethical. But there is a lingering suspicion among an increasing section of the public that propaganda and advertising consist largely of untruths. I need not even make the effort before a group like this to show that this is not so, or at least not necessarily so.

"Propaganda may be true or false. It cannot be identified by **what** is written or said, but rather by **how** it is written or said. Propaganda consists essentially of a relationship between a speaker and his audience, a writer and his readers.

"What makes a statement propaganda is not the increment of truth or falsehood it contains, but rather the extent to which those to whom it is addressed are in a position to criticize it, to determine the facts, to get access to contrary information, to reflect about it, to examine the motives behind it, and to become aware of what it is they are subtly being moved to think, believe, or do.

"Propaganda is distinguished from education primarily by the degree to which the critical faculties are aroused. Propaganda works through suggestion creeping up the backstairs of our consciousness instead of boldly knocking at the front door; it attempts to get us to **believe** something or to **do** something, rather than to **understand something.**"

They'll Do It Every Time . . . By Jimmie Hatlo

SORRY ABOUT DINNER, MARGE, BUT THE BOSS HAS ME HOOKED ON SOME TOUGH FIGURING —
COME ON, OTTO! IT'S YOUR SHOT!!
SHOOT, MUG! TALK LATER.
PERSONALLY, I'D SAY OTTO BETTER PAY OFF THE BOSS AND GO HOME.
YOU MEAN HE BETTER NOT GO HOME. YOU DON'T KNOW HIS WIFE.
BACK OF THE EIGHT-BALL AGAIN. THE WAR IS ON.
TIP SHEET
JIMMY HATLO
LEAVE IT TO FLANNEL-MOUTH-THEY'LL DO IT EVERY TIME—
THANX TO VAN SMITH TENAFLY - N.J.
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9-28

LETTERS

What To Do With an Excess Shower

National Sales Co.
New—Repossessed—Reconditioned Refrigerators
26 Church St., Cambridge, Mass.
Nov. 13, 1939

Editor:

In your current issue of AIR CONDITIONING & REFRIGERATION NEWS you have a column on the first page titled "What's This Trade-In Thing Coming To."

For real trades, you must come to New England for oddities. For example, we traded the following items in for a new Westinghouse a few days ago: 1 icebox, 4 chairs, 1 iron stove, 1 kitchen table, 1 rug, and several other small items too numerous to mention. The new electric refrigerator would have been in poor company with the old furniture in the same room with it. Therefore, we took the above in trade. The following week we had to replace the stove with a new one and a local furniture company sold them replacement furniture.

The following trade, we believe, beats them all. One of the exclusive hotels in Boston is the Lincolnshire hotel. After selling our refrigerator both the purchaser and ourselves discovered that there was absolutely no room in her suite. What could we do about it? On further investigation, we discovered that there were two shower stalls in her bathroom. Now, only one shower stall is being used for external comfort and in the other reposes our electric refrigerator.

H. H. SUSSMAN

More Dope on the 'Merlin' Milk Cooler

Mills Novelty Co.
4100 Fullerton Ave.
Chicago, Ill.

Editor:

Mr. Hubbell, a very careful reader of your paper, and also a reader who likes to figure things out for himself, says it's impossible to cool 250 gallons of milk per hour from 80 to 38° F., using a Mills 5-hp. condensing unit. And Mr. Hubbell is right.

(Mr. Hubbell, in a letter published in the Nov. 8 issue, wondered if the system mentioned above, which had been described in an earlier issue, might not well be called a "Merlin" assembly, after the magician in King Arthur's Court.)

So as Mr. Hubbell thinks we are as great as Merlin, the famous prophet and magician, who graced the pages of medieval romance stories, we did a little special investigating. The description of the setup was sent to us by our field man. Here is what Mr. Rezeau, of our commercial refrigeration division, reports:

"I find upon investigation that this criticism is in order, inasmuch as an error evidently was made in getting together the data in the field. I talked to C. L. Hartman, our distributor in Rock Island, and he advised me that the milk never runs higher than 70° F. instead of 80° as given in the article, when passing over the refrigerated section of the aerator, and is consistently lower than 70° on this. This is due to the fact that there is available cooling and condensing water which is always below 60° F."

I hope you will at least give us a correction notice on this, as I don't like the idea of Mr. Hubbell suggesting that any of your boys or your readers are gullible.

G. DESPLENTER

Special Articles on Bakery Refrigeration

Caldwell Engineering Co.
310 Cleaveland Bldg.
Rock Island, Ill.
Nov. 8, 1939

Sirs:

We received copy of your Nov. 1 issue of AIR CONDITIONING & REFRIGERATION NEWS.

We are interested in the article by Dr. Cathcart entitled, "Commercial Refrigeration Equipment as Used in the Modern Bakery." We understand that this is the third article and we would appreciate your advising us how to obtain the two preceding articles.

J. L. CALDWELL

Answer: The two preceding articles on "Commercial Refrigeration Equipment as Used in the Modern Bakery," appeared Oct. 18 and Oct. 25.

These issues are obtainable at a cost of 20 cents each, or a subscription to the NEWS may be started with the Oct. 18 issue.

War Comes To News Subscription Dept.

Quarters A-2-B No. B
Norfolk, Va.
Nov. 12, 1939

Sirs:

Due to the present emergency I have been ordered back to service so please change my address to:

Lieut. C. L. Wickman,
QTVS A 2 B No. B,
Norfolk, Va.

I have been so busy getting settled and accustomed to my duty that I neglected changing my address and have missed the NEWS this past month.

C. L. WICKMAN

PERSONALITIES

By George F. Taubeneck

Frank & Charley

Frank Pierce and Charley Lawson have been a team in the refrigeration industry so long that only a genuine "old timer" can remember when they weren't devising and executing sales strategy together.

And one thing above all else they have established over this period of time is that they build solidly, with an eye to the future, rather than work for immediate profits. They've never been the sort to go for "special deals." Rather, they like to make a contract and keep it—"shoot straight," as Frank puts it.

* * *

Riotous Rumors

So when, not long after they teamed up again out at Kelvinator as generalissimo and field marshall of the Kelvinator sales forces, rumors began to spread that they were turning things upside down out there, playing hob with established order, this department took such rumors with a ton of salt.

Nevertheless, the rumors persisted. We heard:

"Kelvinator is dropping all its distributors."

"Kelvinator is liquidating Leonard."

"Kelvinator is firing all its men."

"Kelvinator is going out of the refrigeration business, to concentrate on Nash."

"Kelvinator is raiding Frigidaire distribution."

"Kelvinator is selling out to Chrysler."

* * *

Definite Plan

It was with a feeling of genuine relief, then, that this department toured the Kelvinator offices last week and found perfect order prevailing, with every man in his place. None of the rumors were true, we discovered; rather, Frank and Charley are proceeding in orderly fashion to establish an efficient system of distribution which has long been worked out in their minds.

We can say definitely that:

(1) Kelvinator is keeping its regular executive organization.

(2) Kelvinator is not dropping all its distributors.

(3) Leonard will be continued.

(4) Kelvinator is not wooing Frigidaire outlets.

(5) Kelvinator is not selling out; is going to be in the refrigeration picture stronger than ever.

* * *

Intensive Distribution

When Frank and Charley looked over the distribution set-up they had inherited out at Kelvinator, they found they had 160 distributors to deal with. That's about three or four times as many as concerns like Frigidaire or General Electric have.

* * *

Too Many Hands

The entire organization was geared to the "extensive distribution" theory (the more outlets you have, the more sales you will make) which was so prevalent a few years back, but which has been shown to be so inefficient today (see recent editorials in the NEWS).

Not only was the overhead of dealing with so extensive a distribution system excessive, but the distributors and dealers found it unfair. Too many hands were reaching into the same pot. As a result, they did less and less business on smaller and smaller margins.

Metropolitan distributors found themselves competing with other distributors in their natural trading areas. This weakened the metropolitan distributors so much that they found the going tough in their own cities.

* * *

Strong Distributors

Kelvinator's new plan, which is gradually being put into effect, is to work with half as many distributors (roughly, around 70) and give the stronger distributors enough territory so that they can make some real money. In spots where additional capital will be needed to do a real job in the territory, additional factory branches will be established.

At present, Kelvinator gets about 25% of its business through branches. Under the new arrangement, they expect that figure to be doubled, or maybe even go to 55%, if the branches prove to be as efficient as they hope to make them.

Strong distributors of the Raymond Rosen (Philadelphia) variety, with more territory and a better deal, can then be expected to go to town.

* * *

Products & People

It is common trade gossip that the 1939 Kelvinators were easily the best ever to come off the production lines out at Plymouth Road.

Next year, they predict, the Kelvinator will add "appeal" (just as has Nash) to internal quality.

Ranges? They're tooling up from scratch to turn out something pretty slick. That's a business they mean to get into with both feet. Air conditioning and commercial? Washers? Strong programs, of which more later.

And now as to the people. After 10 years of calling on Kelvinator, we have quite a number of friends out there. It takes a couple of hours to get down those long rows of glass-fronted offices, passing the time of day with each occupant.

Friends, we're frank to say we've never seen so many of those men so happy and so eager. They think they have a real program, and they are putting it into operation with a fine spirit of faith and cooperation.

* * *

Carefully Thought Out

The new Kelvinator plan is not just something that Frank and Charley dreamed up. It is no overnight sensation. Its roots go much further back than that.

As a matter of fact, the writer can testify that Frank Pierce was thinking along these lines last spring, when we talked things over on several occasions in Dayton, before he even suspected he would get a call to Detroit.

Behind the plan lies a philosophy, or line of reasoning, which is outlined in the NEWS editorial of Nov. 8, entitled "Fewer Hands." It is a line of reasoning which seems valid to a considerable portion of industry observers and thinkers at present.

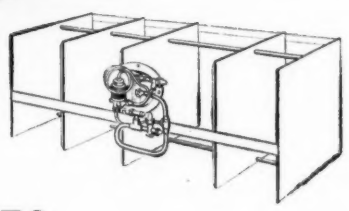
As for "raids" on Frigidaire distribution, that's absurd, according to Frank and Charlie. They're selling their brains and experience, not their connections.

Wilson, Andrews & Friend

Hardage L. Andrews, General Electric vice president who recently took over the direction of the G-E appliance department, was presented in "Personalities" in the Nov. 8 issue of the News. Above he is shown (second from right) explaining the new G-E steam-electric locomotive to a well-known high government official whose initials are F.D.R. (seated in car). At the extreme left is C. E. Wilson, whose appointment as president of the General Electric Co. is announced in this issue. Others (left to right) are C. K. West, Wayne Lynch, O. J. Mitchell, and Stephen Early, secretary to the President of the United States.

Rebuilding QUIZ for Shop Superintendents!

WHAT DO YOU KNOW ABOUT SAVAGE CONVERSION PLATE ASSEMBLIES?



Are These Statements TRUE or FALSE?

		TRUE	FALSE
1.	SAVAGE Plate Assemblies are designed to operate with only ONE kind of refrigerant.	☐	☐
2.	You don't have to cut any cork or wood to install SAVAGE Assemblies in old brine tanks.	☐	☐
3.	SAVAGE Hold-Over prevents short cycling and cuts ice cream losses.	☐	☐
4.	The high rate of heat absorption by SAVAGE evaporator plates increases power costs.	☐	☐
5.	Temperatures vary considerably at top and bottom of rebuilt cabinets.	☐	☐
6.	To insure long life SAVAGE Plate Assemblies are constructed of welded-steel, cadmium plated.	☐	☐

CORRECT ANSWERS:

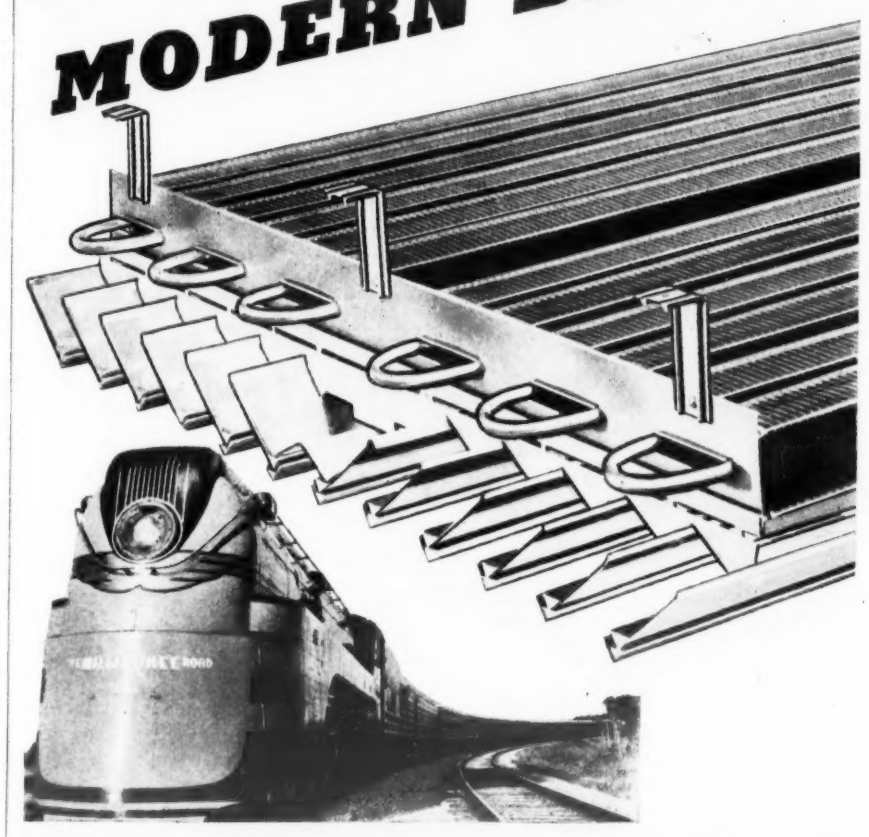
1. FALSE! (You get perfect performance with ANY refrigerant . . . "Freon," Methyl or SO2.)
2. TRUE. (Fits easily into old tank.)
3. TRUE. (That's why so many leading ice cream companies prefer SAVAGE Cabinets.)
4. FALSE! (Better absorption LOWERS power costs by increasing compressor's suction pressure.)
5. FALSE! (Minimum temperature differential throughout cabinet.)
6. TRUE. (Each Assembly is quality-built through and through, like SAVAGE Cabinets.)

A MONEY-BACK GUARANTEE

Send for any size SAVAGE Plate Assembly and put it to any test. If it doesn't SELL ITSELF as the EASIEST and MOST EFFICIENT rebuilding equipment on the market, ship it back within 30 days for full credit.

SAVAGE ARMS CORPORATION
Refrigeration Division
UTICA, NEW YORK
Manufacturers of
Ice Cream Cabinets
Truck Refrigeration
Conversion Plate Assemblies

FAST COOLING MODERN DESIGN



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Air Conditioning

Chain Buyer Outlines Policy Followed In Selecting Systems For 20 Stores

DETROIT — Formulation of a standard policy covering the purchase of air-conditioning equipment has resulted from the 10-year experience of Fred Sanders stores, operator of 21 confectionery-bakery-restaurant establishments in the Detroit area. Founded by "Grandpa" Fred Sanders, originator of the ice cream soda, in 1875, the business has grown to the point where it now uses a total of 345 hp. of air conditioning in 20 stores, and 255 hp. of commercial refrigeration, making a grand total of 650 hp.

John L. Chester, who is in charge of the purchase of all mechanical equipment for the Sanders organization, has found that it is necessary to set up a "skeleton specification" or a few simple requirements to guide distributors and contractors bidding on air-conditioning installations. This includes load requirements, amount of air handled, percentage of fresh air, method of connecting refrigerant coils, sizes of ductwork and outlets, type of grille, and guarantee.

Bidding on Sanders jobs is confined to responsible firms engaged in the air-conditioning business. While it would be possible for Mr. Chester to buy equipment in the open market and have it installed by the company's own men, Mr. Chester has found that the most satisfactory method is to leave the entire installation, adjustment, and service to a responsible concern in the air-conditioning business. This policy is asserted to be the best and least expensive in the long run.

LOAD VARIATIONS

Firms bidding on air-conditioning equipment often show a variation in estimated load of as much as 50%—the average variation being around 25%. After receiving many bids where load computations ran "all over the map," Mr. Chester now asks the firms to bid on a definite load, but at the same time offer recommendations for any change in the load figure that seems necessary.

"Years ago," Mr. Chester says, "air-conditioning firms always figured the load high, with a large factor of safety—but today, the tendency seems to be to estimate a minimum load, in order to get the price down."

Mr. Chester also asks bidders to supply a system which handles a definite amount of air, of which approximately 15% is outside air, and the balance recirculated. All of the 20 stores are equipped with central station, direct expansion systems.

Contractors are permitted to specify the coils used, unless it appears that the coils are not adequate for the job, or do not measure up to the standard of quality required by the Sanders organization. In that case, bidders are asked to give an alternate, including the price of several approved coils. Size of expansion valve to be used on each coil is specified.

Standard makes of fans and motors are used on all installations, the only requirements being that they have the correct horsepower and air delivery.

Sheet metal work is often handled by the Sanders organization; some stores have been equipped with air conditioning using the existing duct system, and on new buildings, sizes of duct and outlets are specified. The company has used a variety of grilles, with Uniflow predominating on sidewall outlets and in one recent installation Anemostats were used.

Air distribution is normally from the upper side wall of the stores, which are on the average, from 20 to 25 feet wide. Return air is taken from the same point on the opposite wall, the return duct running down the side having coffee urns, steam tables, and other heating equipment found in a restaurant. Compressors and coils are normally located in the basement.

Sanders stores ask the bidder to guarantee 80° F. temperature and 50% relative humidity with outside conditions of 95° dry bulb and 76° F. wet bulb. Equipment is guaranteed for one year from date of installation and free service is provided for that time. Contractors are not asked to guarantee equipment "to the satisfaction of the owner" or to meet other intangible requirements.

Air-conditioning compressors used in Sanders stores are York, Kelvinator, Carrier, Westinghouse, and Universal Cooler. All have been purchased from responsible contractor-distributor organizations.

COIL CONNECTIONS

Over a period of years Mr. Chester has learned many of the "tricks of the trade." Contractors are required to connect refrigeration suction lines at the bottom of the coil, which prevents oil from filling up the lower part of the coil during mild weather.

"Where coils had the suction line coming off the top," Mr. Chester related, "we found that during certain periods, when the expansion valve only opened a little, that oil would begin to accumulate in the lower part of the coil, and that cooling would be obtained only from the upper part. By taking the suction line off the bottom and then bending it upwards, oil getting into the coil runs out and is carried back to the compressor from the 'trap' formed by the curve in the suction line."

Of the 20 Sanders stores equipped with air conditioning, only five have heating equipment included and this was in use before the cooling equipment was installed. Mr. Chester reports that this condition is not because of any prejudice against year-around air-conditioning systems, but because the stores are normally leased, and the heating equipment furnished by the owner. Very little heat is required—three radiators at the most, because of cooking equipment used and the heat from patrons.

Of the systems in use, two are 40 tons, one 27½ tons, three 25 tons, one 20 tons, five 15 tons, and five 10 tons. In addition three stores are equipped with well-water systems.

Service and maintenance has never been a serious problem in air-conditioning equipment. Mr. Chester has found that jobs properly installed will operated for years with only a minimum of attention. The amount of service necessary corresponds favorably with the amount required for the company's commercial refrigeration.

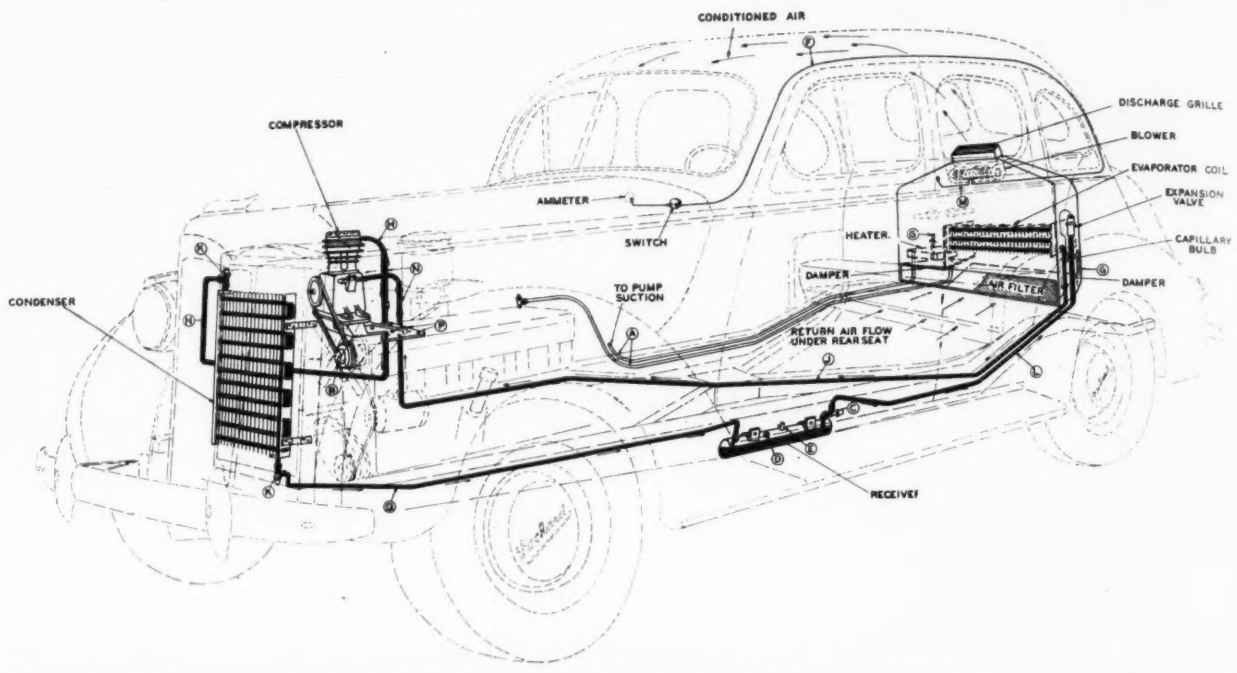
COMMERCIAL EQUIPMENT

From year to year the Sanders organization is constantly buying and installing commercial refrigeration equipment as well as air conditioning. While several stores still have CO_2 equipment, this is gradually being replaced with lighter and more efficient "Freon" systems. CO_2 equipment is used exclusively, however, for "industrial" use in the company's ice cream plant, which supplies the several stores.

Commercial applications used by the company include ice cream making, hardening, cream aerators for cooling the mix, cooling of chocolate dipping rooms, cooling of tunnels where finished chocolates are "set," walk-in refrigerators, ice cream storage cabinets, fountain coolers, and numerous types of water and liquid coolers.

The majority of soda fountain equipment used by the Sanders stores is of their own design and is "custom built" to specifications.

Factory Installed Heating and Cooling System For Packard Sedan



This air-conditioning system for Packard sedan models is the first automotive unit to be made available to the motoring public. Sold as a standard factory equipped accessory, the system includes: A—Heater hose line, B—Compressor take-off pulley, C—Receiver shut-off valve, D—Fusible plug, E—Liquid tester, F—Blower lead wire, G—Damper control, H—½" dia. high-pressure gas line, J—⅝" dia. low-pressure gas line, K—Condenser shut-off valve, L—⅜" dia. high-pressure liquid line, M—Blower ground wire, N—Vibration eliminators, P—Extra length cylinder head studs, Q—½" dia. high-pressure liquid line.

Air Waves Are Cool For Baltimore Broadcasters

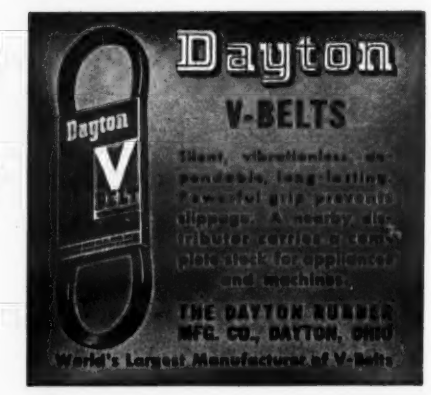
BALTIMORE — New broadcasting studios of Station WFBR were recently opened on the second floor of the Radio Center building here. Offices, news rooms, recording studios, repair shop, artist's lounge, client's booths, and six studios were completely air conditioned by Air Conditioning, Inc., local Carrier distributor.

A total of 133 hp. in compressor capacity is used to serve the broadcasting studio, and the Center Theater, which is located in the same building.

The transmitting building, located about 10 miles from the studios on the Patapsco river is also equipped with a conditioning system. Transmitting towers for the station have been constructed near this building, which are located directly over the river.

Isthmus Hotel Gets Air-Cooling System

PANAMA CITY, Panama — New $250,000 hotel to be erected here will be equipped with air conditioning on its mezzanine floor, which will include a beauty salon, barber shop, and cocktail bar. The building will be located on the site of the present International Hotel, in the heart of the business section, and will have between 75 and 100 rooms. It will be of modern design.



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Smooth and silent as a sailboat, Servel's "Silver Fleet" refrigerating machines offer you a standard of operating efficiency that is 3 to 5 years ahead of the field. Ask for the new 72-page catalog. Servel, Inc., Electric Refrigeration and Air Conditioning Division, Evansville, Ind.

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Write for Bulletin No. 187

DETROIT LUBRICATOR COMPANY
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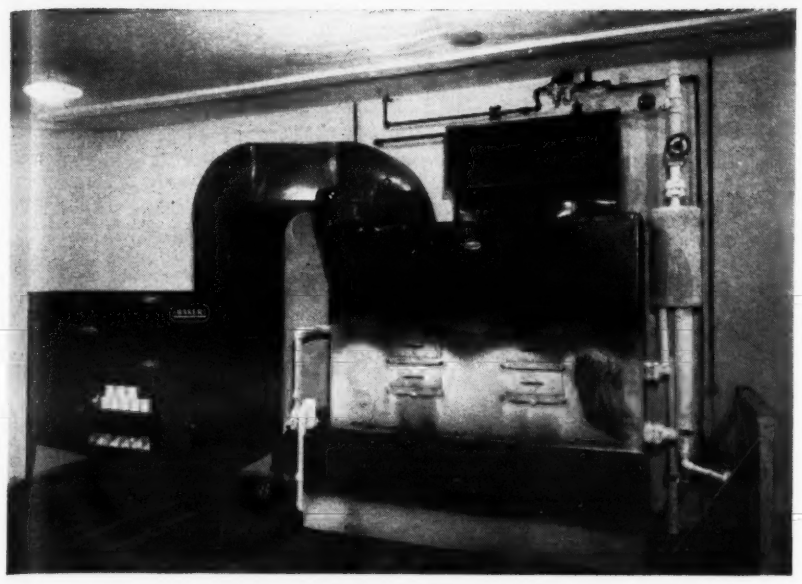
Locker Storages

Quick-Freezing Cabinet & Frozen Food Display Feature Locker Room of Memphis Storage Plant



This forced-draft freezing cabinet is hooked up to the locker room's brine spray cooling system.

This display of packaged frosted foods at the left flanks a tier of storage lockers.

• • •

NASHVILLE, Tenn. — A forced draft quick-freezing cabinet and a display of frozen food products, both located in the plant's locker room, are outstanding features of the Franklin Road Locker Storage and Super Market here.

The quick-freezing cabinet, part of the plant's all-Baker refrigeration system, is connected by ductwork to the Baker brine spray "Coldstream" unit which cools the locker room itself.

With this arrangement, no separate freezing room is required. The Coldstream unit is capable of maintaining 0° F. temperature in the locker room and of producing practically any desired freezing temperature in the quick-freezing cabinet. The entire setup is automatically controlled and has a special defrosting arrangement and solution.

The frozen foods, all wrapped in cellophane or packaged in cellophane-covered cartons, are displayed on special shelves along one side of the locker room.

Lockers in this plant are of Midwest manufacture and are arranged in tiers five units high and 12 units long. Ample aisle space is allowed between each tier. Neither overhead coils nor ductwork is used. Lighting in the room is said to be "shadow-proof."

Insulation used throughout is Wilson & Co.'s "Naturzone," a fabricated, treated hog hair product. All walls and ceilings are finished with Portland Cement plaster, scored in equal squares. Floors are of double construction matched wood, which is said to prevent patrons from literally getting "cold feet."

The chill and aging cooler is held at a constant temperature of 33° F. Cold air is supplied by a Baker ceiling-type Coldstream evaporator, thermostatically controlled for both temperature and humidity.

The room is equipped with an overhead trolley system to facilitate the transfer of heavy sections of meat. All meat hooks are heavily tinned to provide increased sanitation, and various lengths of trolley hooks permit correct spacing of cuts as well as easy removal.

Refrigeration for the plant is supplied by two four-cylinder Baker type F6A 3½ x 3½ self-contained ammonia units with forced feed lubrication and shell-and-tube condensers.

Both units are under full automatic control, with the automatic features so timed that one compressor unit may be cut into service, and the other unit remain idle until additional refrigeration is needed. Then the second unit is cut into service and remains in operation until the refrigerant demand is satisfied. Either unit may be the first to start, thus alternating the sequence of operation.

The meat cutting department of the super market, where all cutting is done for the locker plant as well as for retail sales, is handled by three full-time butchers. Each piece of meat cut for locker storage is double wrapped in "Celoshine Brad-Tite" moisture and vapor proof paper to protect the meat from dehydration or "freezer burn" and to preserve it in its original state.

The plant also offers such additional facilities as stock corrals, holding pen, slaughtering, offal disposal, meat curing and smoking, and fruit and vegetable preparation. Every department complies fully with Nashville's sanitary regulations.

The locker plant and market is owned and operated by Ralph Harris and John Beeson, who called in Paul V. Harmon, engineer for Locker Plant Construction & Management Corp., Nashville, for consultation when the plant was constructed. More than 5,000 people, it is claimed, visited and inspected the plant on its opening day.

All-Steel-Equip Co. Offers New Line of Unitary Lockers

AURORA, Ill.—Simplicity of assembly, flexibility of arrangement, and attractiveness of appearance are among the outstanding features claimed by All-Steel-Equip Co. for its new line of "Froz-n-Food" unitary lockers for refrigerated food storage plants.

Both drawer-type and door-type units are available. The former are made up in two-drawer sections and are shipped complete, ready to use. The latter, available in single-locker units, are shipped in a knock-down state, but are so fabricated that they can be assembled by unskilled labor in about three minutes, the manufacturer states.

The unitary construction makes it possible for the locker plant operator to stack these lockers on top of each other, to arrange them side by side, or to locate them in any other way that may be most convenient.

Another advantage of the unitary principle is that the plant operator can start out by purchasing and installing only as many lockers as he actually needs, adding others as demand necessitates.

All locker units are enameled in ivory, with jade green enamel frames. Hardware is of chrome plated brass.

The company claims that its 27 years of experience in locker construction has enabled it to produce a locker of unusual strength and durability.

All lockers are 30 inches deep but are available in two different heights and widths. Drawer units are fitted with riveted guides and ball-bearing rollers. None of the units contain louvered doors or body perforations. All drawer units are mounted on 1-inch legs.

Locks are of the disc-tumbler type, and are rustproof. Two grooved keys for each unit and a master key for the plant operator are furnished. The locks are designed so that the keys cannot be removed unless the locker is locked. Chromium plated number plates for the lockers are furnished in any desired numerical sequence.

In addition to supplying the lockers, the All-Steel-Equip Co. maintains a staff of trained engineers to advise and aid in the organization of locker plants. Services of these engineers are available to the firm's customers without cost or obligation.

R.E.A. Limits Locker Plant Financing

WASHINGTON, D. C.—The Rural Electrification Administration has announced the conditions under which it will finance locker storage plants. To be eligible for financing, the petitioning groups must comply with the following conditions:

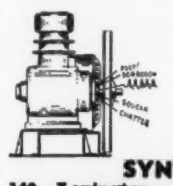
1. Any refrigerated locker storage plant financed from R.E.A. funds must be on the lines and a customer of an R.E.A. financed distribution system.

2. Only plants which conform to the specifications prepared by R.E.A. will be financed.

3. No applications for loans will be considered unless the sponsors have already secured, or can give reasonable assurance that they can secure, not less than 200 bona fide memberships or locker rental contracts before construction of the plant will be started.

4. Preference will be given to plants organized on a cooperative basis.

5. R.E.A. will reserve the right to select the plants which it will finance, regardless of the comparative merit or time of submission of applications.


STOP LEAKS AND NOISE on old shafts as well as new with SYNTRON "ANTI FRICTION" SHAFT SEALS
Order from your jobber
SYNTRON CO.
140 Lexington Ave., Homer City, Pa.

REMPE Knows FIN COILS PIPE COILS
ask REMPE
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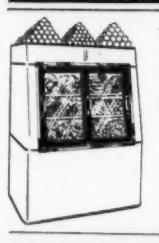
Manufacturers of VEG-A-KRISP
Complete line of Meat and Vegetable Display Cases.
Quillen Bros. Refrigerator Co.
Indianapolis, Indiana

ACME INDUSTRIES, INC.
JACKSON MICHIGAN
LOW SIDE EQUIPMENT

DOUBLE YOUR PROFITS Selling
THE PROFIT LINE FOR '40

NEW SHERER DELICATESSEN CASE
Refrigerator and compressor sales go together. Sell both on one contract.
THE SHERER FRANCHISE OFFERS: ★Complete line of cases, coolers and boxes. ★New equipment under development opens new fields for compressor sales. ★Layout department—Store layouts without obligation. ★Advertising—Sherer advertises by mail and in trade publications.
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ELECTRIC DRY TYPE GUN—COOLER REFRIGERATION
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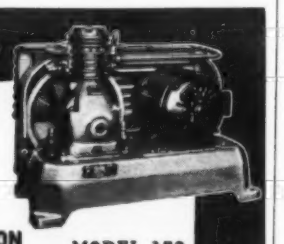
If a comfort-cooling, product-cooling or heavy-duty refrigeration unit is needed as an essential part of equipment you make, sell, or use—enlist GR-Lipman specialized engineering knowledge and service-tested units. Add our experience to yours

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You never get a "Wrong Number" when you depend on the RANCO LINE of Household and Commercial Controls.
RANCO CONTROLS — Built to Save the Time of SERVICE MEN!
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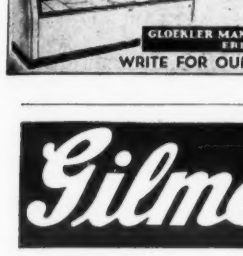
PENN Leads in
AUTOMATIC SWITCHES AND CONTROLS
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA


QuiKold
BEVERAGE COOLERS
10 MODELS WRITE FOR CATALOG
S&S COOLERS
LIMA, OHIO

GET PEAK PERFORMANCE with SPORLAN
Controlled Performance VALVES

Use CHICAGO SEALS
for seal replacements
A complete line in all sizes
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20 North Wacker Dr., Chicago

WRITE FOR OUR NEW CATALOG

Field Testing of 'Faulty' Expansion Valves May End Unnecessary Work, Engineers Say

* * *

Simple Test Possible With the Ordinary Service Kit

By the Engineering Department of the Detroit Lubricator Co.

(Concluded From Last Issue)

It often happens that thermostatic expansion valves are removed from installations and returned to the factory as defective when actually there is nothing wrong with them. A large number of valves received at the factory for repairs are in perfectly good operating condition.

It is quite a simple matter to test out these valves in the field, and where this test has been regularly used, it has practically eliminated unnecessary removal and return of valves. In most cases the regular service kit contains all of the necessary equipment. The equipment required is as follows:

1. Service drum full of "Freon" or methyl chloride (in the shop a supply of clean dry air at 75 to 100 lbs. pressure can be used in place of the service drum). The service drum is merely for the purpose of supplying pressure and for this reason the refrigerant used does not have to conform with the valve being tested; in other words, a drum of "Freon" would be perfectly satisfactory for testing with SO_2, methyl chloride, or "Freon" valves.

2. A high pressure and low pressure gauge. The low pressure gauge should be accurate and should be in good condition so that the pointer does not have too much lost motion. The high pressure gauge is not absolutely necessary but is recommended so as to show the pressure on the inlet of the valve.

3. Fittings and connections are required to complete the hook-up as shown in Fig. 1.

4. A small quantity of finely crushed ice is necessary and one of the most convenient ways of carrying this around is to keep it in a thermos bottle. If such a container is completely filled with crushed ice it will last easily for 24 hours.

Whatever the container is it should be completely filled with crushed ice. Do not attempt to make this test with the container full of water and a little crushed ice floating around on top.

Procedure

1. Connect the valve up as shown in Fig. 1 with the low pressure gauge screwed slightly loose into the adapter on the expansion valve outlet. The gauge is screwed up loosely so as to provide a small amount of leakage through the threads.

2. Insert the bulb in the crushed ice.

3. Open the valve on the service drum and be sure that the drum is warm enough to build up a pressure of at least 70 lbs. on the high pressure gauge connected in the line to the valve inlet.

4. The expansion valve can now be adjusted. The pressure on the outlet gauge should be different for various refrigerants as follows:

"Freon"	22 lbs.
Methyl Chloride	15 lbs.
Sulphur Dioxide	3 lbs.

These pressures are equivalent to an evaporating temperature of 22° F. and since the crushed ice maintains the bulb at 32° F., there is a difference of 10°, or in other words, the valve adjustment is for 10° superheat. This has been found desirable for practically all types of installations.

Be sure to have a small amount of leakage through the gauge connection while making this adjustment.

5. Tap the body of the valve lightly with a small wrench in order to determine if the valve is smooth in operation. The needle of the gauge should not jump more than 1 lb.

6. Now screw the gauge up tight so as to stop the leakage through the threads and determine if the expansion valve closes off tightly. With a good valve the pressure will increase a few pounds and then either stop or build up very slowly. With a leaking valve the pressure will build up rapidly until it equals the inlet pressure.

7. Again loosen the gauge so as to permit leakage through the threads and then remove the feeler bulb from the crushed ice and warm it up with your hand or by putting it in water at about room temperature. The pressure should increase rapidly showing that the power element has not lost its charge. If the pressure does not increase when this is done it is a sign that the power element is dead.

With gas-charged expansion valves the amount of charge in the power element is limited and the pressure will not build up above the specified pressure. This pressure is always marked on the power element and must be considered when testing gas-charged valves.

8. With high pressure showing on both gauges as outlined in the preceding paragraph, the valve can be tested to determine if the body bellows leaks. This should be done by loosening up the packing nut and using a Halide leak detector to detect the escape of gas.

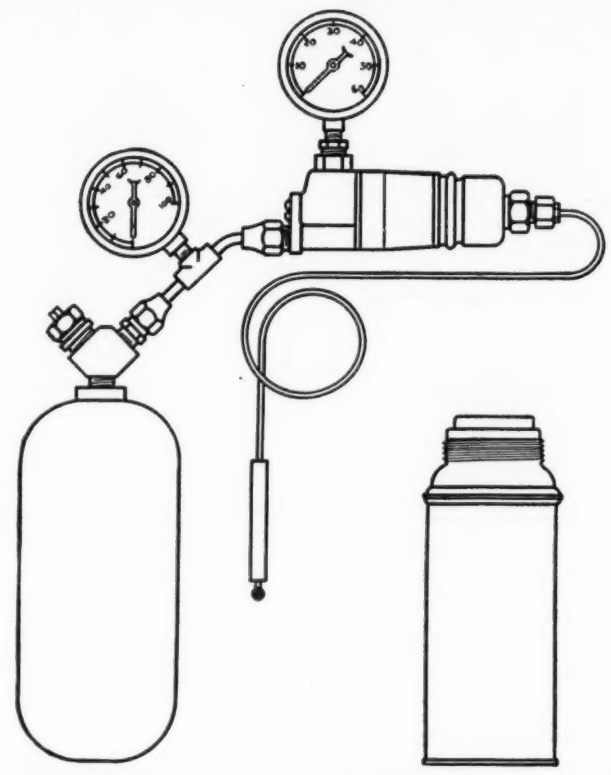
When making this test it is important that the body of the valve have a fairly high pressure on it and also that the gauge and other fittings are screwed up tight so as to eliminate leakage at other points. Leakage can also be detected by the use of oil or soap suds.

Precautions

1. Be sure that the service drum has liquid in it and is warm enough to build up sufficient pressure. The high pressure gauge used as shown in the diagram will often save a lot of trouble because it will show when there is not enough pressure on the inlet side of the valve. During the winter time especially the service drum may become cold and develop insufficient pressure to make a satisfactory test.

2. Be sure that the thermos bottle or other container is full of finely crushed ice and does not have merely a little ice floating on top of the water.

Fig. 1—Set-up For Field Test of Valves

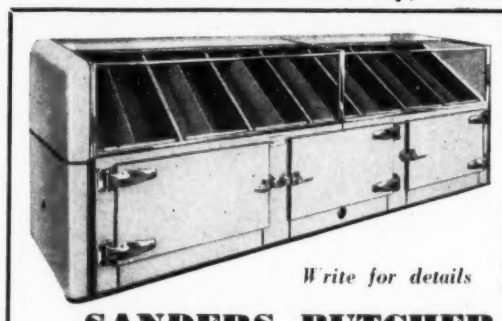


Hook-up of gauges, service drum, and thermostatic expansion valve in the field test is shown above. At lower right is thermos bottle for carrying crushed ice.

New Flexible Coupling Takes Larger Shaft Sizes

NEW YORK CITY—Recent additions to Certified Flexible Couplings, Inc.'s line of equipment for low power drives include a No. 4 coupling, similar to other couplings except that it can accommodate up to 1¼-inch bores; a No. 4R coupling, insert of which has a steel ring molded into extensions of the rubber lugs, enclosing the rubber in a compression chamber. Inserts are available made of neoprene, where required.

Gilmer's TROUBLE SAVER! "HANDIMETER"
Best bet in the service field today is Gilmer's "EYE-FUL" TOWER BELT MERCHANDISER! A single carton contains (1) time and trouble saving "Handimeter" that instantly measures any belt brought in, up to 75" long and between ⅜" and ¾" wide; (2) 35 Gilmer Belts; (3) The Tower, topped by display sign, on back of which is a perpetual inventory form; (4) Copy of complete Gilmer Catalog; "America's Belt Bible." You make $13.92 PROFIT! Order today . . . we'll bill you $19.36 through your nearest Gilmer jobber.
L. H. GILMER CO., Tacony, Philadelphia


Every Food Merchant A Prospect!
For This New Self-Serve Produce Case
It's OPEN! The customer can reach right in—no doors to slide—and embodies a new principle of refrigeration (Pat. appl'd for).
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HENRY ABSO-DRY Pressure Sealed... DRYER
Hear 'Em Hiss-s-s-s!

TYPE 712
Most efficient because of the exclusive Henry vacuum drying and pressure sealing process. Escape of dehydrated air when seal cap is removed proves unit is absolutely dry! Soldered brass shell with dispersion tube and dehydrant compression spring. Choice of 4 dehydrants.
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Chieftain
Forced feed lubrication is a feature of Chieftain as it is with the finest automobile and airplane motors.
TECUMSEH PRODUCTS CO., TECUMSEH, MICH.
Canadian distributor: Refrigeration Supplies Co., Ltd., London, Ontario

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AND COMPLETE ASSEMBLIES
Save time and labor in fitting and assembling. Practical cooperation with display cabinet builders
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AMERICAN HARD RUBBER COMPANY
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PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS AVAILABLE

CABINET ENGINEER wanted by electric refrigerator manufacturer in mid-west. Man must have original ideas and ability to develop them to meet shop conditions. He must also be able to work out program and direct the work of others. State experience fully and salary expected in first letter. Write Box 1188, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

COMMERCIAL LINE refrigerator display cases, walk-in coolers, and refrigerators; also direct draw mechanically cooled beer coolers. Sell with Ehrlich Compressors or with any other make. Attractive discounts also financing arrangements to help sell. 70 years in business. Write for full information. EHRLICH REFRIGERATOR MFG. CO., St. Joseph, Mo.

COMPLETE COMMERCIAL Refrigerator line. Porcelain corkboard display cases, reach-in, walk-in and sliding door, full vision fruit and vegetable refrigerators. Originators of open top refrigerated vegetable cases. Full line extra-liberally coiled. Percival-Universal units. Established 1886. 53 years of service. C. L. PERCIVAL COMPANY, Des Moines, Iowa.

EQUIPMENT FOR SALE

BRAND NEW complete high sides; ⅛, ¼, ⅓ h.p. General Electric compressors with General Electric motors; Frigidaire compressors with Delco motors. Low prices, money back guarantee. MARTIN SPECTOR, 520 East 20th Street, New York City.

REPAIR SERVICE

DOMESTIC TYPE thermostatic controls reconditioned like new. Precision work by experts. Years of satisfied customers, among largest in the country. All work guaranteed. Try us and be convinced. The largest thermostatic repair service in the country. It's your guarantee. Prices on request. UNITED REPAIR CO., INC., 342 W. 70th St., New York City.

GENERAL ELECTRIC DR-1 and DR-2 Monitor Top units exchanged $27.50. Also 1931, 1932 and 1933 Westinghouse units single evaporator. We pay freight in. Write for exchange unit giving model. We will immediately ship C.O.D. $32.50 an exchange unit rebuilt in the largest reconditioning plant in America. New specially designed crate eliminates necessity of crating old top. Simply place your old top in our crate, return to us, and we will rebate $5.00 deposit to you. ASSOCIATED REFRIGERATOR PLANT, INC., 3028 W. Hunting Park Ave., Philadelphia, Pa.

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HALECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

GENERAL ELECTRIC DR-1, DR-2 Monitor Top units exchanged $27.50 F.O.B. our factory. Send your defective unit. On receipt we make immediate shipment of completely rebuilt, refinished unit with one year guarantee. Like new in every respect. Westinghouse and other hermetically sealed units, prices on request. GENERAL REFRIGERATION MAINTENANCE, 220-22 West Huron St., Chicago, Ill.

G. E. DR1—DR2—$30.00; Domestic Westinghouse $27.50; one year unconditional guarantee. Place order for any model G. E. or Westinghouse sealed unit. Shipment will be made from stock same day. Return old unit later. Our production line turns out completely rebuilt sealed units mechanically comparable to manufacturer's with replacement service inferior to none at prices that enable you to realize profit on resale. Send for Complete replacement schedule. REX REFRIGERATION SERVICE, INC., 2226 S. State, Chicago, Ill.

LOCKER PLANT FINANCING

I WILL FINANCE locker plants, locker plant equipment and installations. GEORGE A. REMPE, 3000 Carroll Ave., Chicago, Ill.

PATENTS

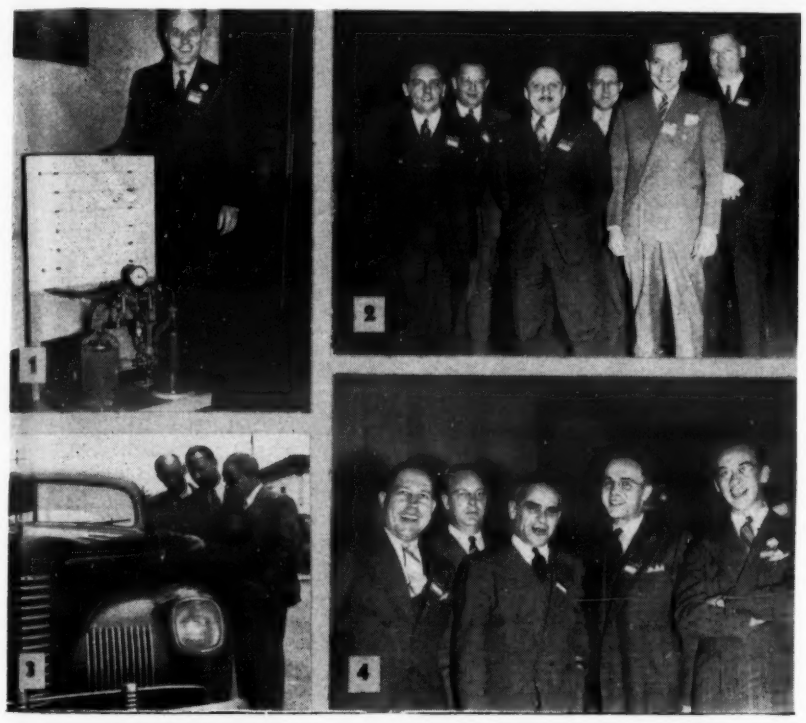
HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

for BETTER SERVICE
EXTRA DRY
ESOTOO
V-METH-L
METHYLENE CHLORIDE
VIRGINIA SMELTING CO.
WEST NORFOLK, VA.

When Illinois Service Men Met At Rockford

When the Illinois Association of the Refrigeration Service Engineers Society met earlier this month in Rockford, Ill., the meeting was topped off by a dinner-dance, for those who attended. That a good time was had by all is attested to by these pictures taken by Irving Alter.

(Upper left) Claude Brunton of Huntington, W. Va. (national president of the R.S.E.S.) and Mrs. Brunton. (Upper right) Mr. and Mrs. Leonard C. Nelson of Galesburg, Ill. (Lower left) Mr. and Mrs. A. D. McGill, Peoria, Ill. (Lower right) Mr. and Mrs. Gene White, Calumet City.



(1) Harry Busby of Chicago demonstrates a new four-purpose vacuum pump. (2) Left to right: Claude Brunton, national president of the society; H. T. McDermott, secretary; E. A. Plesskott, St. Louis, vice president; C. Buschkopf, Beaver Dam, Wis., a director; Willis Stafford, Aurora, Ill.; George Clark, Square D Co. (3) A sad moment, this. Herman Goldberg (right) manufacturers' agent from Chicago, comes up with a traffic ticket as J. H. Burkell of Industrial Training Institute and F. E. "Jerry" Jernberg of Mills Novelty Co. look on. (4) Mr. Buschkopf, Mr. McGill, Mr. Goldberg, James Ott, Henry Valve; Bud McKee, Detroit Lubricator Co.

Industry Saves Both Men and Materials By Air Conditioning

(*Concluded from Page 5, Column 5*)

though this dirt was always present, it was found to be greater in amount during the summer, when the windows were open.

"It was decided to close the room off to seal it from outside dirt, and to install a complete air-conditioning system with temperature and humidity controls to make comfortable working conditions. This necessitated the introduction of fresh air, which meant that a filter had to be installed to remove all dirt and dust.

"The humidity control was important, since these parts are cleaned of all oil and are, therefore, easily rusted.

"As a result of this installation, all rejections due to dirt on the seal were eliminated; and since the parts and the repair labor are expensive, the cost of the installation was saved in less than 30 days.

"In addition, the efficiency of the employes increased substantially because of the more comfortable conditions resulting from the installation. Production schedules and shipments were more easily met because of the elimination of tie-ups on the final assembly of the units.

"Any plant which has to do with the manufacture of machinery or parts, or assemblies requiring medium or close tolerances, faces one or all of the three problems just outlined and many more.

"Whether your product is a small watch, a fine microscope, or a huge steam turbine, the fundamental problems presented by temperature and humidity variations or air-borne dirt are the same—and such problems can be, and in most instances have been, minimized through properly applied industrial air conditioning.

"Typical of the way in which air conditioning is coming to the aid of more industries every day is the recent construction of an air-conditioned blast furance at the Woodward Iron Co.'s plant in Alabama. The installation calls for refrigeration and air-conditioning equipment to control the amount of moisture in the air handled. Twenty-seven hundred tons of air per day are cooled to a constant predetermined dewpoint, then heated to a temperature of 1,000° F., with no water added.

"Approximately 20 tons of water are removed from the air every day. The conditioned air is then blown into the blast furnace at a pressure of from 5 to 30 lbs. per square inch."

Parenthetically, Mr. Henderson made the point that in industrial air conditioning, the temperature and humidity ranges best suited for most product processing are beneficial to the plant personnel.

Contented and highly productive labor, executives have found, makes a large contribution to production profit.

PRINTING AND LITHOGRAPHIC PROCESSES

One of the earliest and one of the most consistent users of air conditioning is the printing industry. Because so many of the materials used in printing are highly hygroscopic in nature, no real accuracy in printing procedure is possible without air conditioning, Mr. Henderson noted.

In addition to control of temperature and humidity, the elimination of air-borne dirt is also an important consideration in fine printing and lithographic work.

Printing plant troubles due to weather conditions are well known to practical operators. Familiar are shrink and stretch of stock, distortion of rollers, smutting, static electricity, cracked stock in the folding machines, picking of ink, and the scumming of offset plates.

Although time tickets will show such obvious losses as the time spent for relocking forms or remaking offset plates on jobs where the stock has stretched out of register between runs, or the time lost where sheets cannot be fed or jogged for cutting on account of static, time tickets cannot show, with sufficient accuracy, the literally hundreds of minor leaks and delays caused by fluctuating weather conditions.

No ticket shows the 10 minutes per job per press extra a pressman may take in setting or resetting the slightly swollen roller, or the 50 sheets per hour lost because of the stock being slightly curly and difficult to feed, or the 10 to 20 minutes that may be lost on each job while the pressman doctors the ink so that it will run just right on that particular day, or the 10 to 20 minutes a pressman may take interlaying a plate whose block has warped.

"The examples we have discussed," concluded Mr. Henderson, "give you an idea of the infinite versatility of air conditioning in production processing."

Middle Atlantic Jobbers Take 2 New Members

(*Concluded from Page 1, Column 5*)

meeting was good, and members are of the opinion that the organization will be of definite help to the industry in this section, he says.

Next meeting of the sectional group will be held in conjunction with the convention of the National Refrigeration Supply Jobbers Association in Chicago, Jan. 15-18, 1940.

Coldspot To Introduce '40 Models Earlier

(*Concluded from Page 1, Column 3*)

in various sections of the country. Boston meeting is scheduled for Jan. 12, and the New York City showing for Jan. 15.

Actual selling of the line will not be started until several weeks later. As was the case this year, actual selling is expected to be inaugurated on the Pacific Coast about mid-January, practically a month earlier than in the past.

New N. C. Leonard Dealer

HAMLET, N. C.—Patrick Furniture Co. has been named dealer here for Leonard refrigerators and Marion ranges.

Finned Tube Products
Since 1907 Bush Mfg. Co.
for COOLING, HEATING and AIR CONDITIONING
..... Hartford, Conn.

A Dehydrator that is really Dry. Mueller Brass Co. Dri-Drier.
MUELLER BRASS CO.
Port Huron, Mich.

The Most Accurate Control Valve for Small Capacity Systems
ALCO
The "TK" Thermo Valve
Alco Valve Co., St. Louis, Mo.

AMINCO
Multiple-Temperature Snap-Action Valve
"A Precision Instrument"
For systems with more than one coil, operated from one compressor unit, controlling differing temperature on various coils. May be used with any refrigerant except ammonia. For flooded as well as dry gas types or any combination of either.
American Injector Company
1481 Fourteenth Avenue Detroit, Michigan
Pacific Coast—Van D. Clothier, 1015 E. 16th, Los Angeles
Export: Borg-Warner International Corp., 310 S. Michigan Ave., Chicago, Ill.

QUICK SERVICE
Complete stocks of REFRIGERATION and AIR CONDITIONING SUPPLIES and EQUIPMENT
LOW PRICES
THE HARRY ALTER CO.
1728 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS
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More Profits With LARKIN—
Refrigeration Products
They're in demand by those who demand the best.
The Patented LARKIN COIL
HUMI-TEMP UNITS DISSEMINATOR Pans
Instantaneous WATER COOLERS
Today—See Your Jobber or Write Direct to
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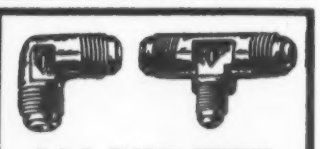
519 Fair St., S. E.
ATLANTA, GA.
Branch Factory, 57-59 East 11th St., New York City

A tight system calls for FITTINGS THAT WILL STAY TIGHT
IMPERIAL S. A. E. flared fittings have been setting a mighty fast pace in the air conditioning and refrigeration field . . . and their rapid acceptance by installation and service men is based on *results*. Imperial fittings are tight when the job is finished and they *stay* tight.
Write for catalog covering complete listing of sizes and prices.
IMPERIAL BRASS MFG. CO., 565 S. Racine Ave., Chicago



S. A. E. FLARED FITTINGS
Brass forged nuts, tees, elbows and crosses — will not crack. Heavier and stronger than standard—non-porous—no seepage or season cracking. Tees and elbows have flats for wrench.
IMPERIAL Fittings ORDER FROM YOUR JOBBER
VALVES • TOOLS • CHARGING LINES • FLOATS • DEHYDRATORS • STRAINERS

COMMERCIAL REFRIGERATORS
World's most complete line of commercial cabinets—13 to 84 cu. ft. capacity.
MIDWEST
MFG. COMPANY • GALESBURG, ILL.

Fulco
gilt-edge ADJUSTABLE
REFRIGERATOR COVERS
Write for Prices
Cannot be surpassed for long life and general usage . . . best quality covering with special reinforcement at edges . . . made with our special non-lump filler. Fits any refrigerator.
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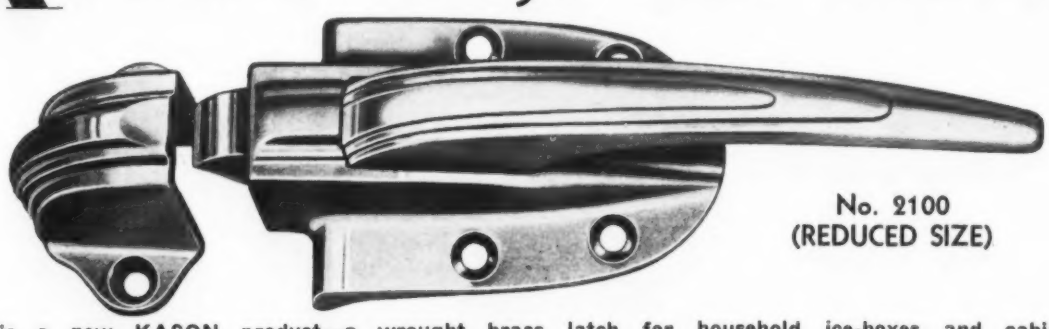
Manufacturers Since 1870
Atlanta St. Louis Dallas New Orleans Minneapolis New York Kansas City, Kan.

Anaconda Copper
Refrigeration Tubes
for difficult jobs!

THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices: Waterbury, Conn.

BUNDY TUBING
Copper-Brazed Steel. Copper Coated Inside and Out. Sizes: ⅛" to ⅝" O.D.
BUNDY TUBING CO., DETROIT

KASON Wrought Brass LATCH



No. 2100
(REDUCED SIZE)

This is a new KASON product—a wrought brass latch for household ice-boxes and cabinets—beautifully fashioned and perfectly engineered for maximum SERVICE-WORTHINESS. We also manufacture a wrought brass hinge of matched design (Cat. No. 2200). Write for descriptive literature.
KASON HARDWARE CORP'N., 127 Wallabout St., Brooklyn, N. Y.

Joint Session With ASRE on Program Of Servicemen's January Meeting

(Concluded from Page 1, Column 1)

The national officers and board of directors of the society will hold a meeting on Sunday, Jan. 14—the day before the convention proper opens—to dispose of as much business as possible before the scheduled program begins.

Membership of the general convention committee of the R.S.E.S., which is in charge of all plans for the annual get-together, is as follows:

E. A. Plesskott, St. Louis; chairman; Vern Nold, Marion, Ind.; J. Barksdale, Chicago; R. R. Moss, Oshkosh, Wis.; A. D. McGill, Peoria, Ill.; F. Klepfer, Indianapolis; P. F. Noth, Madison, Wis.; J. A. Pechi, South Bend, Ind.; L. C. Nelson, Galesburg, Ill.; R. C. McCarthy, Rockford, Ill.; E. H. White, Calumet City, Ill.; A. L. Hammond, Springfield, Ill.; Wm. Metcalf, Joliet, Ill; W. W. Farr, Lakewood, Ohio.

The society's educational program committee consists of: George H. Clark, Detroit, chairman; E. W. McGovern, Wilmington, Del.; Paul B. Reed, Evansville, Ind.

The tentative program for the convention follows:

MONDAY—JAN. 15

8:00 a.m. to 10:00 a.m.—Registration.

10:00 a.m.—Convention call to to order. Invocation.

10:15 a.m.—Chicago welcomes you.

10:30 a.m.—Theme of convention. Greetings from manufacturers association.

10:45 a.m.—Introduction of national officers. Address by President C. A. Brunton. Secretary's report, H. T. McDermott. Treasurer's report, S. A. Leitner.

11:15 a.m.—Committee reports: educational and membership.

11:45 a.m.—Appointment of convention committees, announcements, adjournment.

TUESDAY—JAN. 16

9:45 a.m.—Information please.

10:00 a.m.—Conversion applications of vacuum plates, illustrated.

10:30 a.m.—Electro dryers, practical demonstration.

11:00 a.m.—Movie, Refrigeration for Fire Fighting.

11:30 a.m.—The preservation of meats—temperatures, humidities, air velocities, designs, control methods, etc.

12:00 m.—Report of nominating committee, election of officers, adjournment.

6:30 p.m.—All-Industry Banquet.

WEDNESDAY—JAN. 17

9:45 a.m.—Information please.

10:00 a.m.—Servicing ice cream cabinets and soda fountains.

10:30 a.m.—Applications of the superheat control.

11:00 a.m.—Movies (no subject yet).

11:30 a.m.—Engineered air distribution, illustrated.

12:00 m.—Reports of convention committees, unfinished business, new business, adjournment.

2:30 p.m.—Joint meeting with A.S.R.E.: "Pressure Drop in Lines," by E. Gygax. "Charging Domestic Units," Westinghouse engineer. Tube bending contest, Imperial Brass Mfg. Co.

8:30 p.m.—R.S.E.S. farewell party.

Donald Duck To Spark Water Heater Drive

(Concluded from Page 1, Column 4)

papers, and national magazine advertising women will hear and see the story again and again.

MKB headquarters are furnishing the "props and costumes" for dealers to aid them in putting on an electric range promotion show. Selling guides, full-color window banners and display cards, radio spot announcements, and direct mail pieces will all have a part in the dealer's plan book.

Donald Duck, that dizzy darling of the cartoon screen, has been engaged by the Kitchen Bureau to put the spark in its 1940 electric water heater campaign. Gravel-voiced Donald will be the key figure in the drive to sell electric water heating to millions of prospective buyers.

From window banners, from counter cards, from newspaper and national magazine advertising Donald will quack wise and loud. Story of the advantages of electric water heating will be sold through plan books and direct mail folders. Donald has cooked up his own personal jingle book for the guidance of salesmen and for the entertainment and education of electric water heater prospects.

Modern Kitchen Bureau decided that the best way to get the story over to the millions of prospects was to appoint a spokesman, popular with people everywhere, qualified to get and hold attention, and capable of influencing public in the right direction. Who but the most popular of ugly ducklings—Donald.

On the big window banner Donald blares out the theme song of the drive, "Life is duck soup with electric water heating." Counter cards feature catchy jingles—"the answer to a happy 'ducking' prayer." A series of national advertisements are scheduled to appear in Better Homes & Gardens, in which Donald Duck personally sponsors the statement about safe, clean, carefree electric water heating.

Donald has thrown his famous beret into the electric water heater sales ring and dealers are all set to lead to bigger sales in 1940.

Appliances End Slumps For Service Stations

(Concluded from Page 1, Column 5)

our appliance sales originate from our gas, oil, and tire customers," said Carl B. Thomas, manager of the company. "We approach them on the purchase of a range or some other item, or they see the display inside and ask about the merchandise.

"We find that electrical appliances help to prevent seasonal slumps in our business," said E. E. Delaney, manager of the Quigley company. "If the automobile owner isn't ready to buy one thing, we approach him on the sale of another. The tire business is slack during the winter months, and that gives us more time to work on radios, a seasonable item.

"As spring comes, tire sales pick up, and so do electric refrigerators, giving our salesmen something to sell that is 'hot' the year around. When the demand for all these items drops off, we can offer a few specials in accessories, batteries, automotive radios, etc., that will pull business. The idea is to dovetail the sales of the lines into one another as seasonally as possible."

Mr. Delaney pointed out that the service station afforded plenty of parking space, which the downtown department and specialty shops do not have to offer. This is advantageous to the customer who can leave his or her car and walk inside to inspect the merchandise on display.

Both stations go in heavily for newspaper advertising, the Quigley firm using considerable color space. Both also rely to a great extent on what is termed "third-party selling," citing the names and recommendations of persons who already own the appliances being offered for sale. This works particularly well on electric ranges.

Another reason why service stations like to handle electrical appliances is that, in contrast to the small margin of profit on tires and petroleum products, electrical appliances carry a 33⅓% markup to the dealer, and the unit sale runs many times higher.

Frigidaire Names 2 To Dealer Dept.

(Concluded from Page 1, Column 1)

store dealers, working under Dan A. Packard, who is in charge of major dealer development. Mr. Truesdell has been sales manager of Frigidaire's Kansas City office, where his activities for the past 15 years were principally with department stores.

Mr. Krumm, formerly associated with National Retail Furniture Association, will contact furniture stores on a countrywide basis. Starting with N.R.F.A. as director of research, Mr. Krumm subsequently served as secretary of the controller's division, and later became business manager of the association's publication, the National Furniture Review.

Cooling Ups Business For Photographer

(Concluded from Page 1, Column 4)

serve the sitting room, waiting room, and the cool air was then drawn into work rooms at the rear of the building by means of an exhaust fan. Temperatures of from 72 to 74° are maintained by the system.

Advertising used by the studio features air conditioning from May 1 on each year.

Valves used Exclusively on Commercial Refrigeration Service Company's Installations . . .

"Dependable in all Respects"

Commercial Refrigeration Service Co.
COMMERCIAL EQUIPMENT
SALES • SERVICE
393 ROGERS AVENUE, BROOKLYN, N. Y.
PRESIDENT 3-1200

October 23, 1939

Automatic Products
24 North 32nd Street
Milwaukee, Wisconsin

Dear Sir:

We are enclosing pictures of a recent installation which we feel will be of interest to you.

Some time ago we were persuaded by the Paramount Electrical Supply Company of New York City to try A. P. Valves. Since then we have used them almost exclusively and have found both the expansion and solenoid valves to be very dependable in all respects.

Very truly yours,
Commercial Refrigeration Service Co.
William P. DeSpagna

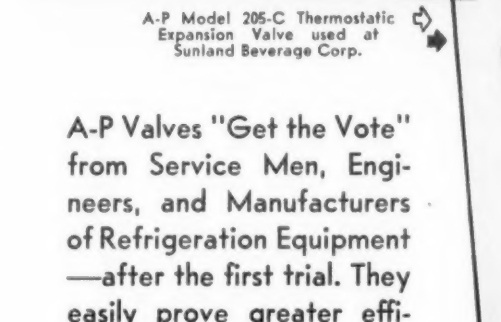
WFD: RJ

GENERAL ELECTRIC • ICE-O-MATIC

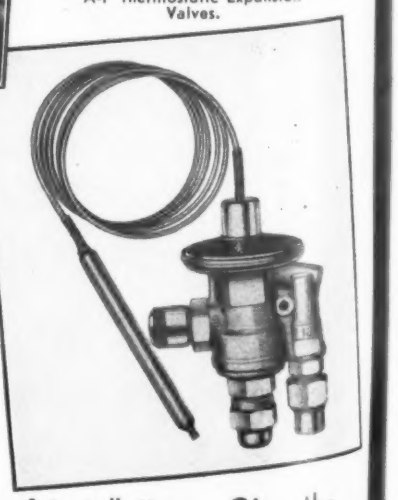
SUNLAND BEVERAGE CORP.
Brooklyn, N. Y.
Recent "Commercial" installation

Williams Ice-O-Matic Condensing Unit, 5 H. P., Model VFW-500, at Sunland Beverage Corporation.

Part of large 87' x 27' Refrigerator Storage at Sunland. Capacity, 1200 barrels of Stegmaier Beer. Showing two of six Peerless Unit Coolers equipped with A-P Thermostatic Expansion Valves.



A-P Model 205-C Thermostatic Expansion Valve used at Sunland Beverage Corp.



A-P Valves "Get the Vote" from Service Men, Engineers, and Manufacturers of Refrigeration Equipment—after the first trial. They easily prove greater efficiency in accurate, supersensitive, service-free Refrigerant Control on all types of installations. Give the A-P Valve a chance to show its DEPENDABILITY on YOUR next installation!

• Plan Now to See The Second Annual All-Industry Exhibition.
STEVENS HOTEL ★ CHICAGO ★ January 15-18, 1940

Refrigeration Parts Jobbers — Who Recognize Quality, Stock A-P Valves.

AUTOMATIC PRODUCTS COMPANY
2450 NORTH THIRTY — SECOND STREET
MILWAUKEE WISCONSIN

DEPENDABLE
THE BYWORD FOR A-P VALVES

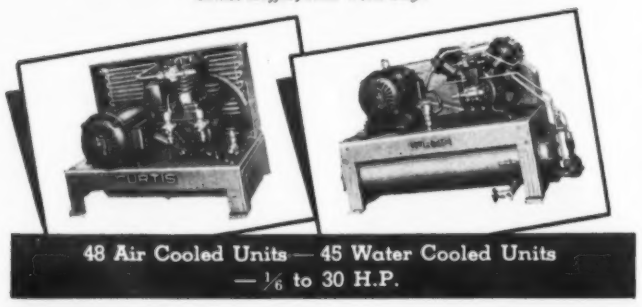
Installation of Two Curtis Store and Office Coolers in the Sonice Buffet, New York City.

The Completeness of the CURTIS Line Assures the Correct Equipment for Every Air Conditioning or Refrigeration Need

WHETHER you buy, sell, install or specify air conditioning or refrigeration equipment, there's a Curtis unit that fulfills every requirement. Curtis covers a wide range of markets—makes possible greater sales. And you can specify Curtis products with absolute confidence.

The Curtis Store and Office Cooler fulfills the air conditioning demands of all classes of retail establishments. It's a complete, factory designed, packaged air conditioning unit. It mechanically cools, dehumidifies, circulates and filters the air — is quickly and easily installed with only water and electrical connections needed — adaptable for heating, too. It is offered in 3 and 5 ton sizes.

The Curtis Line of Condensing Units includes sizes from 1/6 H.P. to 30 tons air and water cooled — also unit coolers, coils, evaporative condensers, etc. Every Curtis product is precision engineered to deliver economical, efficient, care-free performance throughout an exceptionally long life.



48 Air Cooled Units — 45 Water Cooled Units — 1/6 to 30 H.P.

CURTIS REFRIGERATION AIR CONDITIONING AND COMMERCIAL

"Builders of Condensing Units Since 1926"

Curtis Refrigerating Machine Company
Division of Curtis Manufacturing Co.
1912 Kienlen Avenue, St. Louis, Mo.